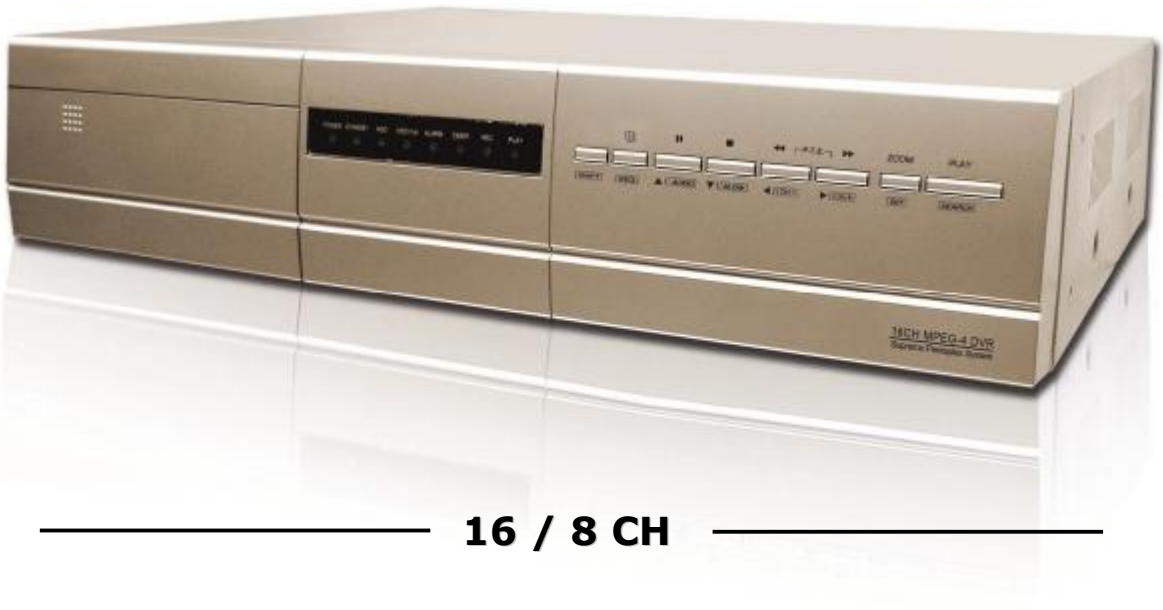
16 CH MPEG-4 DVR

~Digital Video Recorder~

Real time performance 480(NTSC) / 400(PAL) IPS



16 / 8 CH

User's Manual

Please read instructions thoroughly before operation and retain it for future reference.

787 V0.982

Thank-You Note Before You Get Start

First of all, we would like to express our gratitude to you for purchasing this product. This product is designed to meet your personal needs with our great industry-designing ability and our everlasting perseverance to the quality of all our products.

This manual will introduce to you how to install this apparatus. Please keep it well for your future reference.

Now, we would like to invite you to personally experience all of the powerful functions this product offers.

Note: Version: 1021-07-E8-04-V354-04; AP: 0019.

Note: Any changes of AP, please refer to your distributor.

Note: Any changes of this manual made to the actual product are subjects to no further notification.

IMPORTANT SAFEGUARD

CAUTION

RISK OF ELECTRIC SHOCK

CAUTION:
To reduce the risk of electric shock, do not expose this apparatus to rain or moisture.

Only operate this apparatus from the type of power source indicated on the label. Failure to do so may cause injury or death by electric shock and invalidates the warranty.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CE Mark

This apparatus is manufactured to comply with the radio interference requirements of EN 55022 : 1998 + A1 : 200, EN61000-3-2 : 2000, EN6100-3-3:1995, EN50130-4 : 1995 + A1 : 1998.

CE

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1.1 FEATURES

DVR Features

- MPEG-4 real time compression format
- High resolution recording (For 16 channels):
  Frame: 720 × 480 pixels with 120 IPS〈NTSC〉/ 720 × 576 pixels with 100 IPS 〈PAL〉
  CIF: 352 × 240 pixels with 480 IPS〈NTSC〉/ 352 × 288 pixels with 400 IPS 〈PAL〉
- Image quality setting: Best, High, Normal, and Basic
- Extensive recording time by connected to Independent Disk Array.
- Remote surveillance on mobile phone via GPRS, or on PC through internet connection
- Easy file backup methods with USB, and network remote recording backup
- Alarm trigger recording will send alert with images to designated e-mail and FTP address
  Also supports pre-alarm recording (8MB)
- Advanced motion detection function (4 different adjustable factors of motion detection sensitivity) and convenient search function.
- Pentaplex functions (live display, record, playback, backup, and network)
- Web function supports MJPEG compression format for transmitting over the internet
- Web surveillance supports multiple viewers simultaneously
- Support covert screen for live view channels
- IR remote control of the system and PTZ through RS-485
- Support PELCO-D protocol
- 2 HDD bases built-in, each can support more than 400GB
- Easy system upgrade via USB
- Support static IP, dynamic IP, and DHCP with DDNS function
- Support manual / timer / motion / alarm recording functions
- Record audio with 4ch in and 2ch out
- System auto recovery after power reconnected
- Optional Peripherals: independent disk array, VGA connector

1.2 PACKAGE CONTENTS

Digital Video Recorder

Adapter

Licensed Software AP

* 8

Accessories Packs

IR Transmitter and
IR Receiver (1.5m)

Manual & Quick Start

NOTE: Please check the package contents to make sure that you receive all accessories shown above.

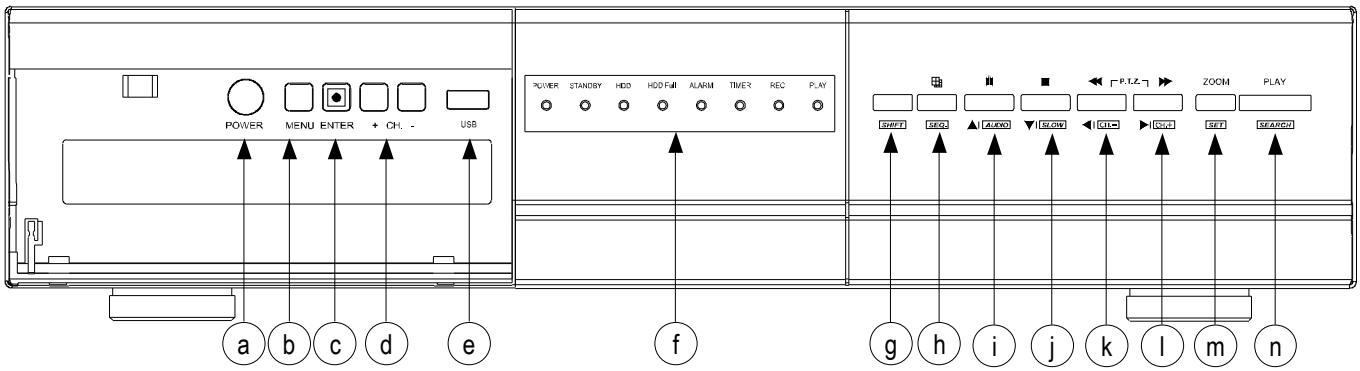
1.3 SPECIFICATION

Video System	NTSC / PAL (switch able)	
Video Compression Format	MPEG 4	
Video Input	16 / 8 Channels. Composite video signal 1 Vp-p 75Ω BNC	
Video Loop Out	16 / 8 Channels. Composite video signal 1 Vp-p 75Ω BNC	
Video Output	Main Monitor Output: Composite video signal 1 Vp-p 75Ω BNC Call Monitor Output: Composite video signal 1 Vp-p 75Ω BNC	
Maximum Recording Rate	16 channels ~ Frame: 720 × 480 pixels with 120 IPS〈NTSC〉/ 720 × 576 pixels with 100 IPS 〈PAL〉 CIF: 352 × 240 pixels with 480 IPS〈NTSC〉/ 352 × 288 pixels with 400 IPS 〈PAL〉	
	8 channels ~ Frame: 720 × 480 pixels with 60 IPS〈NTSC〉/ 720 × 576 pixels with 50 IPS 〈PAL〉 CIF: 352 × 240 pixels with 240 IPS〈NTSC〉/ 352 × 288 pixels with 200 IPS 〈PAL〉	
Adjustable Recording Speed	16 channels ~ Frame: 120, 60, 30, 15 IPS <NTSC> / 100, 50, 25, 13 IPS <PAL> CIF: 480, 240, 120, 60 IPS <NTSC> / 400, 200, 100, 50 IPS <PAL>	
	8 channels ~ Frame: 60, 30, 15, 7 IPS <NTSC> / 50, 25, 12, 6 IPS <PAL> CIF: 240, 120, 60, 30 IPS <NTSC> / 200, 100, 50, 25 IPS <PAL>	
Image Quality Setting	Best, High, Normal, and Basic	
Hard Disk Storage	IDE type, ATA66, supported HDD ＊ 2, support each HDD capacity over 400GB	
HDD Quick Cleaning	Quick clean up the “index system” of the recorded files. 250GB under 2 seconds	
Recording Mode	Manual／Timer／Motion／Alarm	
Refresh Rate	16 channels: 480 IPS for NTSC / 400 IPS for PAL	8 channels: 240 IPS for NTSC / 200 IPS for PAL
Pentaplex Operation	Pentaplex functions (live display, record, playback, backup, and network)	
Audio I/O	4 audio inputs, 2 audio outputs (Mono)	
Motion Detection Area	16 × 12 grid per camera for all channels	
Motion Detect Sensitivity	4 adjustable variable with precise calculation for motion detection	
Pre-alarm Recording	Yes (8 MB)	

Specification Continued…		
Backup Device	USB1.1 backup, and network remote recording backup	
Web Transmitting Compression Format	Motion JPEG	
Ethernet	10/100 Base-T. Support remote control and live view via Ethernet.	
Mobile Surveillance	Support GPRS to access the system via mobile phone (require J2ME, MIDP2.0 protocol)	
Web Interface	Support licensed software AP, and IE browser	
Remote Alarm Notification	E-mail images, and images uploading to FTP site's specific account	
Network Connection	Support static IP, dynamic IP, and DHCP with DDNS function	
USB Interface	Support 2 USB 1.1 ports (front panel * 1, back panel * 1)	
Remote Control	Remote control DVR and PTZ via IR transmitter (RS-485)	
PTZ control	Support PELCO-D protocol	
Dwell Time (Sequential Channel Switch)	Programmable with adjustable dwell time	
Alarm I/O	16 channels: 16 inputs, 1 outputs	8 channels: 8 inputs, 1 outputs
Picture Zoom	Support 2X digital zoom function	
Key Lock	Yes	
Video Loss Detection	Yes	
Camera Title	Support up to 6 letters	
Video Adjustable	Hue／Color／Contrast／ Brightness	
Date Display Format	YY/MM/DD, DD/MM/YY, MM/DD/YY, and Off	
Power Source	DC 19V	
Power Consumption	＜64 W	
Operating Temperature	10℃ ~ 40℃ (50℉~104℉)	
Dimensions (mm)	432mm (W) × 90mm (H) × 326mm (D)	
System Recovery	System auto recovery after power reconnected	
Optional Peripherals	**Independent disk array; VGA connector**	

- Any changes made to the actual product are subjects to no further notification.

1.4 FRONT PANEL



1) POWER: (a)
Press “POWER” button to turn on/ turn off the DVR.
(Under recording mode, please stop record before turn off the DVR)

2) MENU: (b)
Press “MENU” button to enter main menu.

3) ENTER / RECORD : (c)
Press “ENTER” button to confirm. / Press “ ” to activate the manual recording.

4) “＋ **CH** －”: (d)
Press “＋ **CH** －” button to change the setting in the menu / to select the channel.

5) USB: (e)
Support firmware update and files backup.

6) LED LIGHT: (f)
POWER: Power on
STANDBY: Standby
HDD: HDD is reading or recording
HDD Full: HDD is full.
ALARM: Once the alarm is triggered
TIMER: When timer recording is turned on.
REC: Under recording status
PLAY: Under playing status

7) MODE : (h)

Press “ ” button to switch channel display mode (16, 9, 4 channels display mode, and show the switch display by each channel)

8) " ⏸ ": (i)
Press " ⏸ " button to pause the play back files.

9) " ■ ": (j)
Press " ■ " button to stop the play back files.

10) " ◀◀ ": (k)
Under playback mode, press " ◀◀ " button to fast rewind.

11) " ▶▶ ": (l)
Under playback mode, press " ▶▶ " to fast forward.

12) "ZOOM": (m)
Press "ZOOM" button to enlarge the picture of selected channel (2X digital zoom).

13) "PLAY" : (n)
Press "PLAY" button to playback recorded files.

14) "▲▼◀▶": (i), (j), (k), (l)
Press "▲▼◀▶" to move the cursor up / down / left / right.

15) "SHIFT" + " SEQ. " : (g +h)
Press "SHIFT" + " SEQ. "to activate the call monitor function and press " SEQ. " to escape the call monitor mode.

16) "SHIFT" + " AUDIO " : (g+i)
Press "SHIFT" + " AUDIO " to select live or playback sounds of the 4 audio channels.

17) "SHIFT" + " SLOW " : (g+j)
Under playback mode, press "SHIFT" + " SLOW " to show slow playback.

18) "SHIFT" + "CH.− " or "CH.+ ": (g+k) or (g+l)
Press "SHIFT" + " CH.− " or " CH.+ " change the setting in the menu / to select the channel.

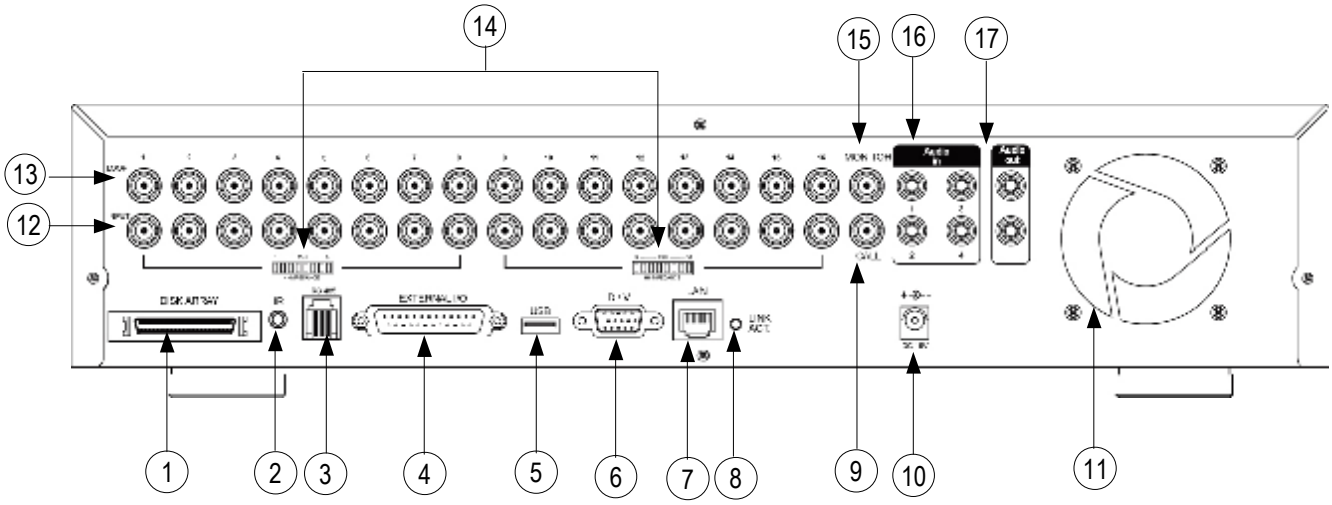
19) "SHIFT" + "SET" : (g+m)

Press "SHIFT" + "SET" to change channel display position.
Press "▲▼◀▶" to select the channel which You would like to change,
Press "+" or "−" select the channel which You would like show.
Press "ENTER" button to confirm.

20) "SHIFT" + " SEARCH ": (g+n)
Press "SHIFT" + " SEARCH " button to enter the search mode.

21) " ◀◀ " + " ▶▶ ": (k+l)
Press " ◀◀ " + " ▶▶ " buttons at the same time to enter / exit the PTZ control mode.

1.5 REAR PANEL (Take 16 channels as an example.)



1) DISK ARRAY PORT:
Connect to disk array for extend HDD capacity.

2) IR:
Connect to IR receiver.

3) RS485:
Connect to external device (such as PTZ camera) with RS485-A and RS485-B.

4) EXTERNAL I/O PORT:
Connect to external device. Control external device or controlled remotely by external device (alarm input, external alarm).

5) USB PORT:
Support firmware update and files backup.

6) D/V PORT (Digital Video Port):
Connect to VGA connector card. (Coming soon)

7) LAN:
Connect to Internet by LAN cable.

8) LINK / ACT LED light:
When the Internet is activated, the LED light will turn on.

9) CALL MONITOR:
Connect to CALL monitor. Show the channel switch display. When the alarm is triggered, the call monitor will show the image of the triggered channel for a period of time.

10) POWER:
Connect to provided adapter.

11) FAN:
For ventilation.

12) VIDEO INPUT (CHANNEL 1 - 16 / CHANNEL 1 - 8) :
Connect to video source, such as camera.

13) LOOP (CHANNEL 1 - 16 / CHANNEL 1 - 8):
Video output.

14) 75Ω / HI:
When using Loop function, please switch to HI. When you don't use Loop function, please switch to 75Ω.

15) MONITOR:
Connect to Main monitor.

16) AUDIO IN (1-4):
Connect to audio source, such as camera which equipped with audio function. When users start the recording function, the audio input will be recorded .

17) AUDIO OUT :
Connect to monitor or speaker.
With 2 mono audio outputs from the same source.

2.1 PHYSICAL CONNECTION

Connecting all the devices to construct a surveillance system, as shown below.
(Take 16 channels as an example.)

1) Install HDDs:
The HDDs must be installed before the DVR is turned on.

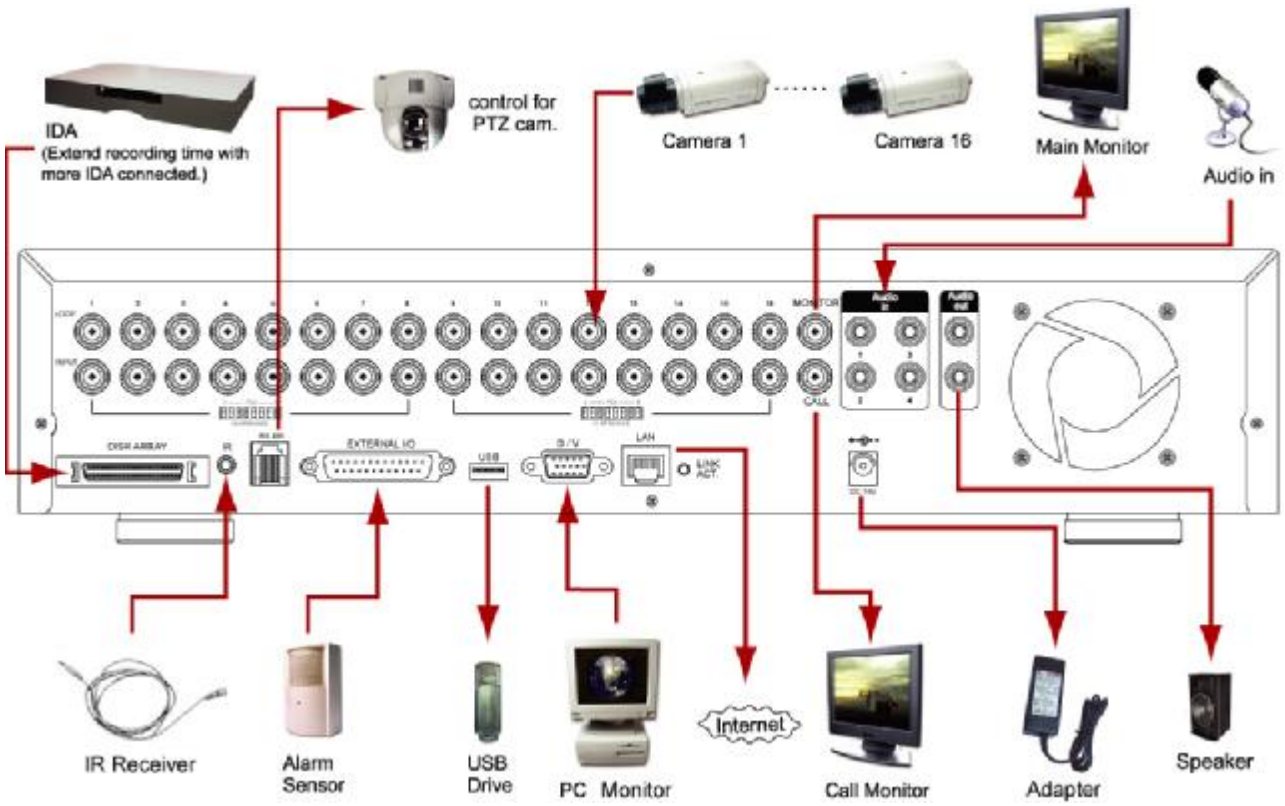
2) Connect cameras.

3) Connect monitors.

4) Connect the external devices.

5) Connect power.

NOTE: Please refer to Appendix #1 for HDD installation instructions.
NOTE: Please refer to Appendix#2 for pin configurations of the external I/O port .



2.2 GETTING STARTED

1) Before using the DVR, please have the HDDs installed ready. (refer to Appendix #1 for installation of HDDs).

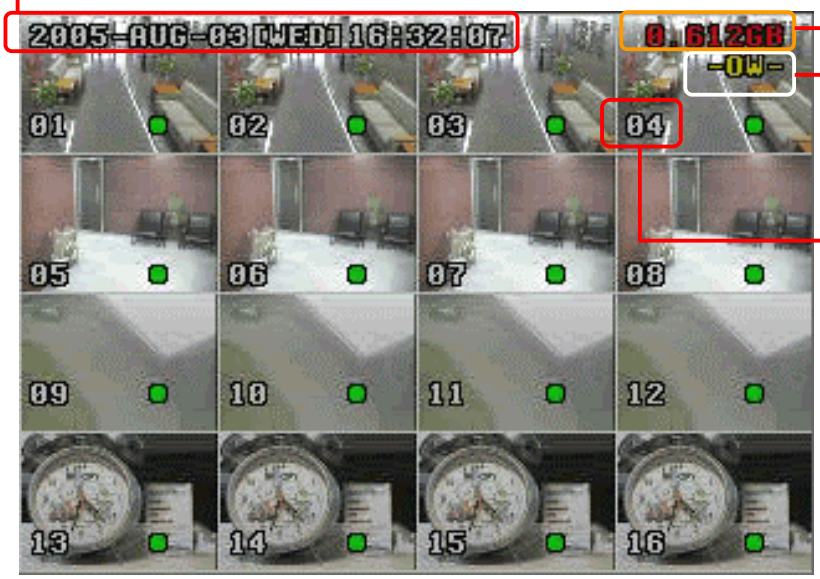
2) Connect the AC power cord to power adapter and plug into an electrical outlet. The standby LED light will turn to red.
Press the “POWER” button. The power LED will be red. It takes approximately 10 to 15 seconds to boot the system with the message : “ SYSTEM INIT... ”, “DETECTING MASTER HDD”, “DETECTING SLAVE HDD”, “DETECTING DISKARRAY”, and also version information, etc.

3) Before operating the DVR, please set up the system time first. (for setting system time, please refer to “DATE” settings).

SYSTEM INIT...

DETECTING MASTER HDD OK
DETECTING SLAVE HDD FAIL
DETECTING DISKARRAY FAIL

VERSION 1021-07-E8-04-V354-04
SYSTEM NTSC
- 787 -



System Time

Available Capacity of Internal HDDs

Under HDD Overwrite Mode

Channel Title

NOTE :

When “HDD not found” message shows up, please refer to appendix # 1. It may result from the improper installation of the HDD.

"Advanced Motion Detection Setting" allows users to adjust different sensitivity factors base on different environment. And "Quick Event Search" allows users to examine the setting of motion detection factors. In this way, users can use specific motion detection setting to capture every important image.

3.1 MOTION DETECTION SETTING

1) LS : The sensitivity of comparing two different images. The smaller the value is, the more sensitive the detection will become.
Application ~
∗ Environment vibration ∗ Light shift
∗ Shadow ∗ Mirror reflection

2) SS : The sensitivity towards the size of the triggered object on the screen. The smaller the value is, the more sensitive the detection will become.
Application ~
∗ Different size of the object on the screen.

3) TS : The sensitivity towards how long the object gets triggered. The smaller the value is, the more sensitive the detection will become.
Application ~
∗ Different speed of the moving object

4) RE : The value of RE is a reference for detection. The default value is 10, which means DVR will compare 10 continuous images at one time according to the sensitivity of LS, SS, TS simultaneously. Therefore the bigger the value is, the more sensitivity the detection will become.
Application ~
∗ Slow and regular environment change

Scenario : Warehouse

Different environments may require different settings, the sample below is for your reference.

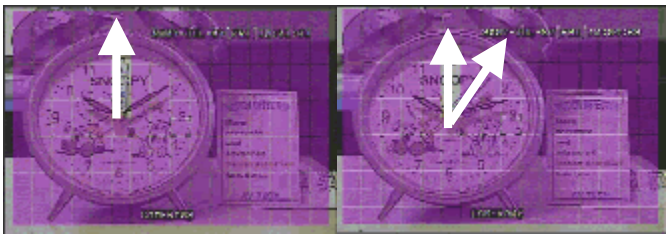
	LS	SS	TS	RE
Entrance	10	2	2	10
Back door	8	1	2	10
Sidewalk	5	2	2	10
Widow	12	2	10	10

- Note 1 : The real appropriate setting value will depend on the real situation (such as the angle of the lens, the distance between the camera and object…etc.)
- Note 2 : User could also refer to "Section 5.8 Advance Menu_Detection" for detail setting.

3.2 QUICK EVENT SEARCH

When finishing the setup of the motion detection, users could simply use the quick event search to examine the setting. There is a simple example for you to understand the principle.

For example,
Motion detection area: see as the following illustration picture.
Motion detection factors: LS:10; SS:1; TS:3; RE:10; Alarm duration: 5 seconds.



After recording for a period of time, users could use quick event search to playback the motion trigger recording files. In the playback files, users will see the second hands swing between the number “12” and “1” on the clock.

BASIC OPERATION

4.1 RECORDING

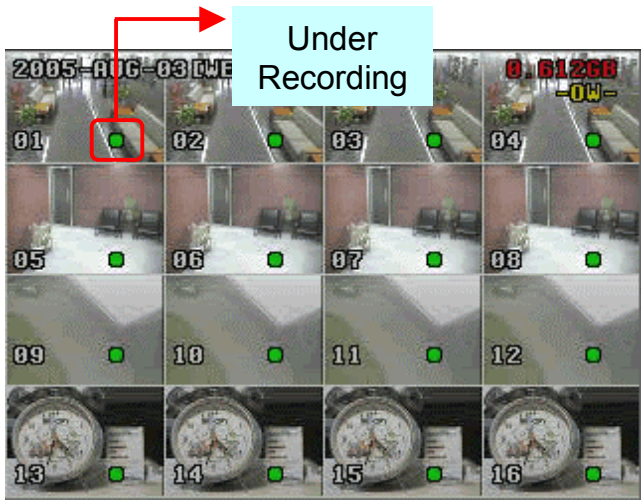
The DVR offers three recording modes, manual record, event recording, and timer record. If power is off accidentally, recorded video files will still be stored in the HDDs. DVR will return to original recording status after power is on again.

1) MANUAL RECORDING (continuous recording) :
Recording is initiated by manually pressing the “REC” button.
Indicated by the sign “●”

2) EVENT RECORDING (triggered by motion and external alarm) :
When this functions is activated,
the recording is triggered by motion or external alarm.
Indicated by the sign “**M**” and “**A**” .

3) TIMER RECORDING (scheduled time) :
Recording is scheduled by Timer. Indicated by the sign “**TIMER RECORD**”.

NOTE :
When the HDDs are full under O/W recording mode, previous recorded files may be overwritten without further warning notices.



4.2 PLAYBACK

Press " PLAY " button, the DVR will display the last recording video.

1) FAST FORWARD (F.F.) & FAST REWIND (REW):

You can increase speed for fast forward and rewind on the DVR.
In the playback mode,
∗ Press " ▶▶ " once to get 4X speed forward and press twice to get 8X speed,… and the maximum speed can reach 32X.
∗ Press " ◀◀ " once to get 4X speed rewind and press twice to get 8X speed, … and the maximum speed can reach 32X.
∗ The type of recording image size (Frame or CIF)will also shown on the screen.

2) PAUSE / IMAGE JOG:

Press "▮▮ " button to pause the current image displayed on the screen.
In the Pause mode,
∗ Press " ▶▶ " once to get forward by frame change.
∗ Press " ◀◀ " once to get rewind by frame change.

3) STOP:

Press "■ " button under all circumstance, it will return DVR to live monitoring mode.

4) CHANNEL SHIFT:

∗ Display mode:
Press MODE " ▦ " button to select display mode (16 / 9 / 4 channels).

∗ Full Screen Switch:
Press "＋" or "－" button to show the full screen channels.

∗ Channel display switch:
Press "SHIFT " + " SET "button,
Press "▲" "▼" "◀" "▶" to select the channel which You would like to change.
Press "＋" or "－" select the channel which You would like show.
Press "ENTER" button to confirm.

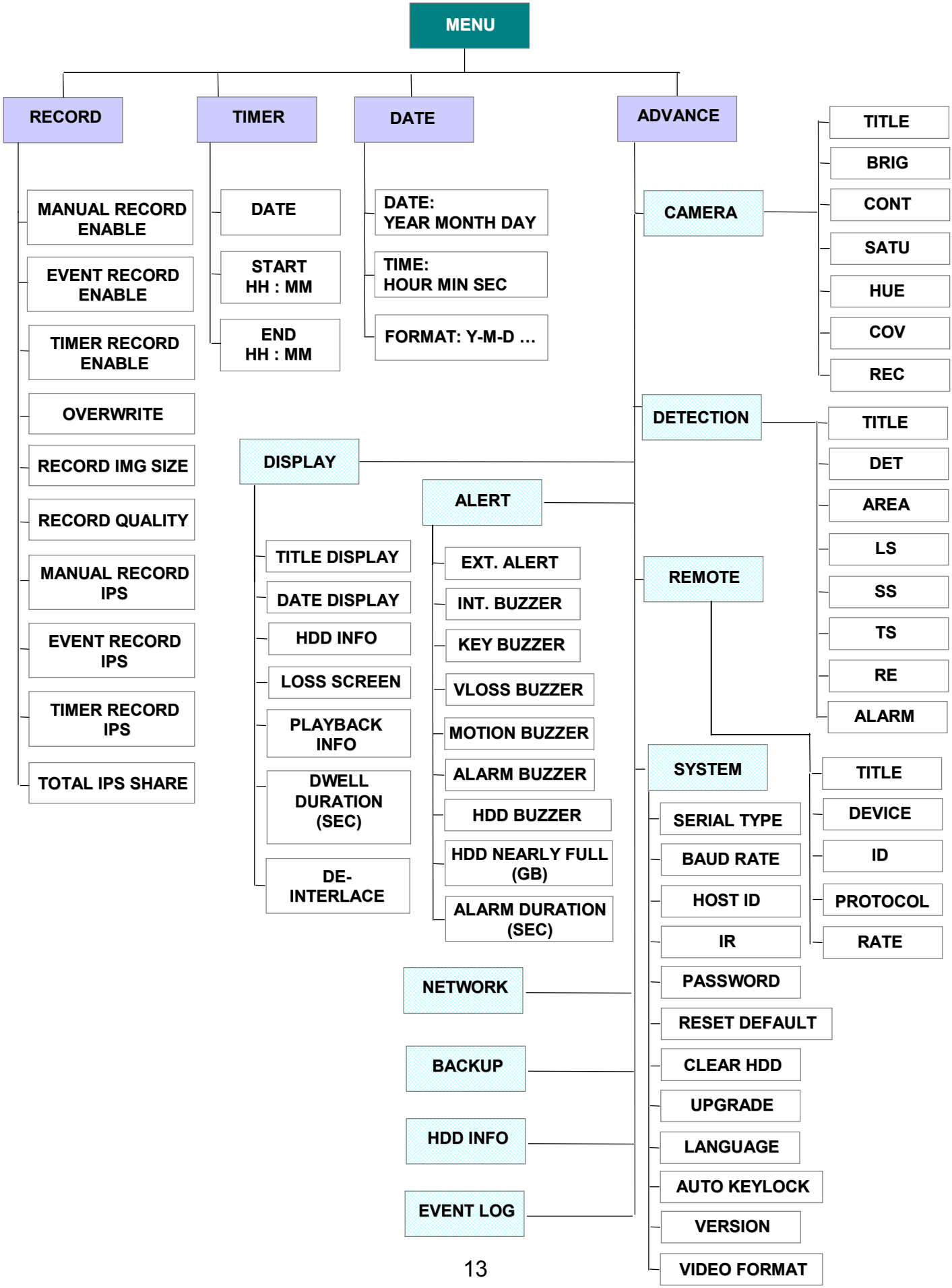
5) SLOW PLAYBACK:

Press " SHIFT " + " SLOW " button to get 1/4X speed playback and press twice to get 1/8X speed, three times to get 1/16X speed, and four times to get 1/32X sped.

6) AUDIO:

Press " SHIFT " + " AUDIO " to select live sounds of the 4 audio channels.
∗ AUDIO 1 (L)
∗ AUDIO 2 (L)
∗ AUDIO 3 (L)
∗ AUDIO 4 (L)

5.1 MENU TREE


MENU
RECORD
MANUAL RECORD ENABLE
EVENT RECORD ENABLE
TIMER RECORD ENABLE
OVERWRITE
RECORD IMG SIZE
RECORD QUALITY
MANUAL RECORD IPS
EVENT RECORD IPS
TIMER RECORD IPS
TOTAL IPS SHARE
TIMER
DATE
START HH : MM
END HH : MM
DATE
DATE: YEAR MONTH DAY
TIME: HOUR MIN SEC
FORMAT: Y-M-D ...
ADVANCE
CAMERA
TITLE
BRIG
CONT
SATU
HUE
COV
REC
DETECTION
TITLE
DET
AREA
LS
SS
TS
RE
ALARM
DISPLAY
TITLE DISPLAY
DATE DISPLAY
HDD INFO
LOSS SCREEN
PLAYBACK INFO
DWELL DURATION (SEC)
DE-INTERLACE
ALERT
EXT. ALERT
INT. BUZZER
KEY BUZZER
VLOSS BUZZER
MOTION BUZZER
ALARM BUZZER
HDD BUZZER
HDD NEARLY FULL (GB)
ALARM DURATION (SEC)
REMOTE
SYSTEM
TITLE
DEVICE
ID
PROTOCOL
RATE
SERIAL TYPE
BAUD RATE
HOST ID
IR
PASSWORD
RESET DEFAULT
CLEAR HDD
UPGRADE
LANGUAGE
AUTO KEYLOCK
VERSION
VIDEO FORMAT
NETWORK
BACKUP
HDD INFO
EVENT LOG

5.2 ACCESS MENU

Press “MENU” button to enter the main menu list. **The default password is 0000.** Enter the default password and press “ENTER”. (Users could alter the password later, please refer to “Section 5.12 ADVANCE MENU_SYSTEM”)

Tip: The default password is “0000”, users could just press “ENTER” four times instead of using “＋” , “－” to select “0” “0” “0” “0”.

(MENU)
RECORD
TIMER
DATE
ADVANCE

There are 4 options available in the main menu:

RECORD -------- Record mode setup.

TIMER ---------- Timer recording setup.

DATE ---------- System date setup.

ADVANCE ------- Advance functions setup.

Use the following buttons for menu setting:

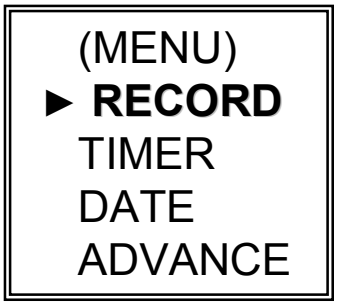
“▲▼◄► “ to move the cursor.

“＋ , －” to choose the numbers / selections.

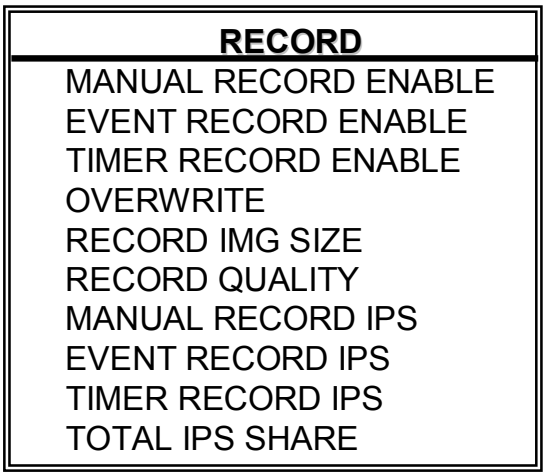
“ ENTER “ to go to the submenu / to confirm the selection

“ MENU “ to go to the menu OSD
/ to confirm the change / to exit the menu OSD

5.3 MAIN MENU OPTIONS___RECORD



Move the cursor to the “RECORD”, and press ”ENTER”, then the screen will show the following options.



1) MANUAL RECORD ENABLE:
Start / Stop the manual recording function.

2) EVENT RECORD ENABLE:
Start / Stop the event recording function. When this functions is activated, the recording will triggered by motion or external alarm

3) TIMER RECORD ENABLE:
Start / Stop the timer recording function.

4) OVERWRITE:
Select to overwrite previous recording video in HDD. When the HDD is full under O/W recording mode, previous recorded files will be overwritten without further warning notices.

5) RECORD IMG SIZE:
There are three recording options: FRAME & CIF. When changing record image size, user need to stop recording first.

6) RECORD QUALITY:
There are four quality settings: BEST, HIGH, NORMAL & BASIC

In the following (7) ~ (10) sections is for 16 channels. For 8 channels, divided the IPS by 2.

7) MANUAL RECORD IPS:
Recording is activated by pressing the “REC” button. Select the images per second of MANUAL RECORD, The options are as the followings:
NTSC: FRAME: 120, 60, 30, 15 PAL: FRAME: 100, 50, 25, 12
CIF: 480, 240, 120, 60 CIF: 400, 200, 100, 50

8) EVENT RECORD IPS:

Recording is activated by event (alarm and motion trigger). Select the images per second of EVENT RECORD, The options are as the followings:

NTSC: FRAME: 120, 60, 30, 15 PAL: FRAME: 100, 50, 25, 12
CIF: 480, 240, 120, 60 CIF: 400, 200, 100, 50

9) TIMER RECORD IPS:

Recording is activated by timer schedule. Select the images per second of TIMER RECORD, The options are as the followings:

NTSC: FRAME: 120, 60, 30, 15 PAL: FRAME: 100, 50, 25, 12
CIF: 480, 240, 120, 60 CIF: 400, 200, 100, 50

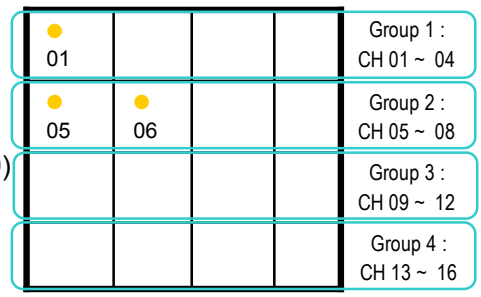
10) TOTAL IPS SHARE:

There are two IPS settings:

FIX: IPS per channel = RECORD IPS ÷ 16 channels

GROUP: every 4 channels will form a group.
IPS per channel = RECORD IPS ÷ 4 ÷ number of channels under recording within the group.

Ex.: If you set the record IPS as 480 IPS, then
Channel 01 will get 120 IPS (480 / 4 / 1 = 120)
Channel 05 and 06 each will get 60 IPS (480 / 4 / 2 = 60)
" ● " means under recording



5.4 MAIN MENU OPTIONS___TIMER

(MENU)
RECORD
► **TIMER**
DATE
ADVANCE

Move the cursor to the "TIMER", and press "ENTER", then the screen will show the following options.

TIMER

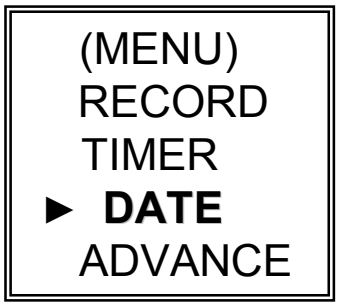
DATE	HH : MM	HH : MM
OFF	00 : 00	00 : 00
DAILY	08 : 00	18 : 00
SUN	06 : 00	23 : 00
MON-FRI	00 : 00	00 : 00
OFF	00 : 00	00 : 00
OFF	00 : 00	00 : 00
OFF	00 : 00	00 : 00

1) DATE:
A scheduled record date (SUN/MON/TUE/ WED/ THU/ FRI/ SAT/ MON–FRI / SAT-SUN / DAILY/OFF) could be set to activate the timer recording.
NOTE 1 : Specific date could be changed by "＋" or "－" buttons.
NOTE 2 : If you plan to set the timer recording across the midnight, there are two ways for setting the timer recording schedule, please following the instructions below.
Example 1 : If you only want to set recording timer schedule from every Sunday 23:30 to Monday 23:30, then you could set recording timer schedule as Sunday from 23:30 to 23:30.
Example 2 : If you plan to set the timer recording from Sunday 08:00 to Monday 15:00, then you could set the recording timer schedule as Sunday from 08 : 00 to 00 : 00, and Monday 00 : 00 to 15 : 00.

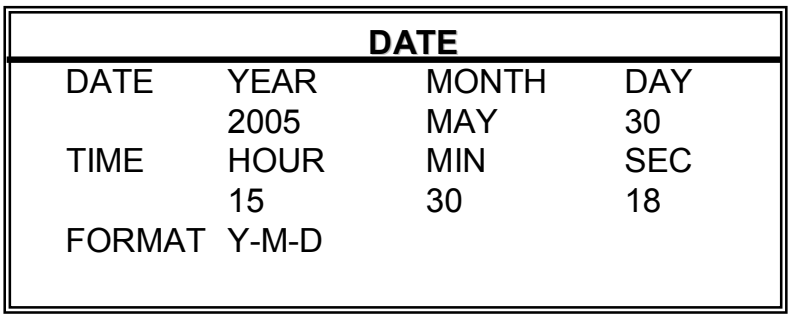
2) START HH / MM:
Select the start time for the recording.

3) END HH / MM:
Select the finishing time for the recording.

5.5 MAIN MENU OPTIONS___DATE



Move the cursor to the "DATE", and press "ENTER", then the screen will show the following options.



Set the correct time of the DVR.
There are three date formats: Y-M-D, M-D-Y, D-M-Y.

NOTE: Press "+" "－" button to do the selections.

5.6 MAIN MENU OPTIONS___ADVANCE

(MENU)
RECORD
TIMER
DATE
►**ADVANCE**

Move the cursor to the “ADVANCE”, and press ”ENTER”, then the screen will show the following options.

ADVANCE

CAMERA
DETECTION
DISPLAY
ALERT
REMOTE
SYSTEM
NETWORK
BACKUP
HDD INFO
EVENT LOG

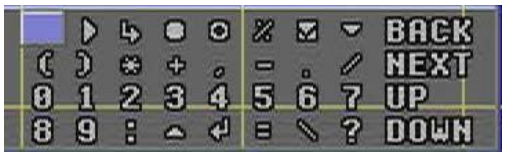
5.7 ADVANCE MENU ___CAMERA

Move the cursor to the “CAMERA”, and press ”ENTER”, then the screen will show the following options.

CAMERA

TITLE	BRIG	CONT	SATU	HUE	COV	REC
01	128	128	128	128	NO	YES
02	128	128	128	128	NO	YES
03	128	128	128	128	NO	YES
04	128	128	128	128	NO	YES
05	128	128	128	128	NO	YES
06	128	128	128	128	NO	YES
07	128	128	128	128	NO	YES
08	128	128	128	128	NO	YES
UP	DOWN					

1) TITLE:
Move the cursor to the title which you want to change, and press “ENTER” to access the setting screen. Assign each channel a title (up to six characters (letters or symbols…)), the default title is the channel number.



2) BRIG / CONT / SATU / HUE:
Adjust the Brightness/Contrast/Saturation/Hue of each channel.
The level is from 0 to 255. The default value is 128.

3) COV (COVERT):
Select “YES” to mask the selected channel which is under recording.

4) RECORD:
Select “YES” to enable the record function; Select “NO” to disable the record function.

5) UP / DOWN:
Select “UP” to go to the previous page; Select “DOWN” to go the next page.

NOTE:
TITLE : 6 characters (letters or symbols…).
BRIG : from 0 ~ 255, the default value is 128.
CONT : from 0 ~ 255, the default value is 128.
SATU : from 0 ~ 255, the default value is 128.
HUE : from 0 ~ 255, the default value is 128.
CONV : YES or NO.
REC : YES or NO.

5.8 ADVANCE MENU ___DETECTION

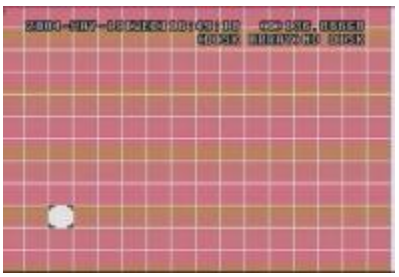
Move the cursor to the “DETECTION”, and press ”ENTER”, then the screen will show the following options.

DETECTION							
TITLE	DET	AREA	LS	SS	TS	RE	ALARM
01	ON	SETUP	07	03	02	10	OFF
02	ON	SETUP	07	03	02	10	LOW
03	ON	SETUP	07	03	02	10	HIGH
04	ON	SETUP	07	03	02	10	OFF
05	ON	SETUP	07	03	02	10	OFF
06	ON	SETUP	07	03	02	10	OFF
07	ON	SETUP	07	03	02	10	OFF
08	ON	SETUP	07	03	02	10	OFF
UP	DOWN						

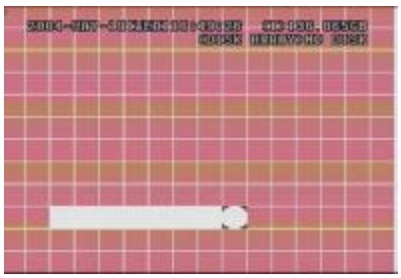
1) TITLE:
Show the title of each channel of the camera.

2) DET:
Select “ON” to activate the motion detect function of each channel.
Select “OFF” to inactivate the motion detect function of each channel.

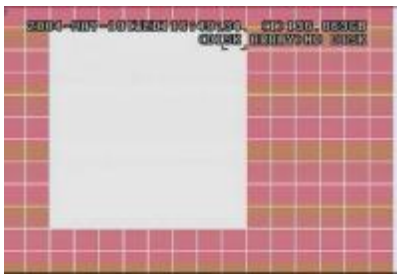
3) AREA:
Press the “ENTER” button to set detection area.
In this function, the default setting is un-detecting any area. Pink blocks represent the area that is not being detected. While the transparent blocks is the area that is under detection.



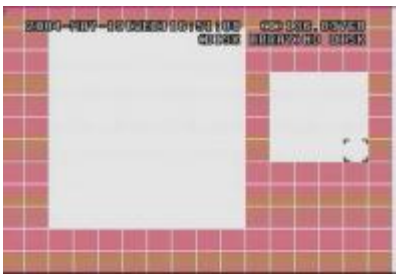
Press “ENTER” to confirm the start area



Press ◄ or ► to choose the width of the area

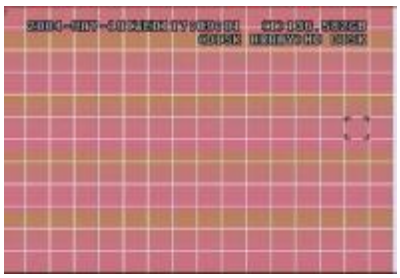


Press ◄ or ► to choose the height of the area, and press “ENTER” again to confirm.



Multi-detected area

Press “—” to turn all area under detection



Press “+” to turn all area not to be detected

▲▼◄► : navigates between targets.

4) LS :
The sensitivity of comparing two different images. The smaller the value is, the higher sensitivity for motion detection.
The highest sensitivity setting is 00, the lowest sensitivity setting is 15.
The default value is 07.

5) SS :
The sensitivity towards the size of the triggered object on the screen.(the number of motion detection grids). The smaller the value is, the higher sensitivity for motion detection.
The highest sensitivity setting is 00, and the lowest sensitivity setting is 15. The default setting is 03.

Note: The default setting of Spatial Sensitivity is 03, which means when 3 grids are detected for motion at one time, the system will get triggered. So the value of Spatial Sensitivity must be less than the number of grids which you set up to motion detection area.

6) TS :
The sensitivity towards how long the object gets triggered. The smaller the value is, the higher sensitivity for motion detection.
The highest sensitivity setting is 00, and the lowest sensitivity setting is 15.
The default setting is 02.

7) RE :
The value of RE is a reference for detection. The default value is 10, which means DVR will compare 10 continuous images at one time according to the sensitivity of LS, SS, TS simultaneously. Therefore the bigger the value is, the higher sensitivity for motion detection.

8) ALARM:
Select LOW / HIGH for the alarm polarity. The default alarm value is OFF.

9) UP / DOWN:
Select “UP” to go to the previous page; Select “DOWN” to go the next page.
Targets set in the AREA.

5.9 ADVANCE MENU ___DISPLAY

Move the cursor to the “DISPLAY”, and press ”ENTER”, then the screen will show the following options.

DISPLAY	
TITLE DISPLAY	ON
DATE DISPLAY	ON
HDD INFO	ON
LOSS SCREEN	BLUE
PLAYBACK INFO	NORMAL
DWELL DURATION (SEC)	2
DE-INTERLACE	ON

1) TITLE DISPLAY:
Turn the channel title display on / off.

2) DATE DISPLAY:
Turn the date display on / off.

3) HDD INFO”
Turn the display information of internal HDD on / off.

4) LOSS SCREEN”
Set the color of video loss screen (Blue or Black)

5) PLAYBACK INFO:
Set the position where playback information will be indicated (center or normal (on the button of left-hand side of the screen)).

6) DWELL DURATION (SEC):
Set the duration time of each channel for CALL MONITOR (2, 4, 8, 16 sec.)

7) DE-INTERLACE:
Set the “DE-INTERLACE” function on / off.

5.10 ADVANCE MENU ___ALERT

Move the cursor to the “ALERT”, and press ”ENTER”, then the screen will show the following options.

ALERT	
EXT. ALERT	ON
INT. BUZZER	ON
KEY BUZZER	ON
VLOSS BUZZER	ON
MOTION BUZZER	ON
ALARM BUZZER	ON
HDD BUZZER	ON
HDD NEARLY FULL (GB)	05
ALARM DURATION (SEC)	05

1) EXT. ALERT:
Set the sound on / off when external alarm is triggered.

2) INT. BUZZER:
Set the sound of KEY / VLOSS / MOTION / ALARM / HDD FULL on or off.

3) KEY BUZZER:
Set the sound on / off when pressing the button.

4) VLOSS BUZZER:
Set the sound on / off when video loss happened.

5) MOTION BUZZER:
Set the sound on / off when motion alarm triggered.

6) ALARM BUZZER:
Set the sound on / off when internal alarm triggered.

7) HDD BUZZER:
Set the sound on / off when the HDD is full.

8) HDD NEARLYFULL (GB):
If HDD buzzer is on, you could choose to have a buzzer notification when the HDD available capacity is only xxx GB left.

9) ALARM DURATION (SEC):
Press “ENTER” or “＋” or “－” button to set the duration time of alarm recording (5, 10, 20, 40 sec.).

5.11 ADVANCE MENU ___REMOTE

Move the cursor to “REMOTE”, and press ”ENTER”, then the screen will show the following options.

REMOTE				
TITLE	DEVICE	ID	PROTOCOL	RATE
01	PTZ	001	P - D	02400
02	CAMERA	002	NORMAL	02400
03	CAMERA	003	NORMAL	02400
04	CAMERA	004	NORMAL	02400
05	CAMERA	005	NORMAL	02400
06	CAMERA	006	NORMAL	02400
07	CAMERA	007	NORMAL	02400
08	CAMERA	008	NORMAL	02400
UP	DOWN			

1) TITLE:
Title of each camera.

2) DEVICE:
Select to control normal camera or PTZ camera for each channel.

3) ID:
Set the ID number (0 ~ 255) as same as the ID of each device.

4) PROTOCOL:
Select NORMAL (our protocol) or PELCO-D protocol.

5) RATE:
Set the baud rate of each channel (2400, 4800, 9600, 19200, 57600).

5.12 ADVANCE MENU ___SYSTEM

Move the cursor to the “SYSTEM”, and press ”ENTER”, then the screen will show the following options.

SYSTEM	
SERIAL TYPE	RS - 485
BAUD RATE	02400
HOST ID	003
IR	ON
PASSWORD	0000
RESET DEFAULT	RESET
CLEAR HDD	MASTER
UPGRADE	NO
AUTO KEYLOCK	NEVER
LANGUAGE	ENGLISH
VERSION	1021-07-E8-04-V354-04
VIDEO FORMAT	NTSC

1) SERIAL TYPE:
Press “ENTER” or “＋” or “－” button to set the control serial type (RS-485, RS-232) of DVR.

2) BAUD RATE:
Press “ENTER” or “＋” or “－” button to set the BAUD RATE of DVR (2400, 9600, 19200, 57600).

3) HOST ID:
Press “ENTER” or “＋” or “－” button to set the ID of DVR (0 ~ 255).

4) IR:
Press “ENTER” or “＋” or “－” button to set the IR function on / off.

5) PASSWORD:
Press “ENTER” or “＋” or “－” button to set the password for accessing DVR.

6) RESET DEFAULT:
Press “ENTER”, and select “YES” to confirm or “NO” to chancel.

7) CLEAR HDD:
Press “ENTER”, and “YES” to confirm clear HDD or “NO” to chancel.
In this function, you can press “＋” or “－” to select the HDD MASTER HDD, SLAVE HDD or DISK ARRAY) which you plan to clear.

8) UPGRADE:
Press “ENTER”, and select “YES” to confirm upgrade or “NO” to chancel.

9) AUTO KEYLOCK:
Set the auto key lock function (Never / 10 sec / 30 sec / 60 sec).

10) LANGUAGE:
Press “ENTER”, and select the language of the OSD.

11) VERSION:
The firmware version information will be shown on the screen.

12) VIDEO FORMAT:
The information of the DVR’s video format will be shown on the screen.

5.13 ADVANCE MENU ___NETWORK

Move the cursor to the “NETWORK”, and press ”ENTER”, then the screen will show the following options.

NETWORK	
NETWORK TYPE	STATIC
DNS	61. 66. 138. 53
PORT	0 0 8 0

1) NETWORK TYPE (STATIC):

Select NETWORK TYPE, and press “＋” or “－” button to set the network type as STATIC, and then press “ENTER” to go to the submenu of the network. In the submenu of network type, use “＋” or “－” button to set all the information needed in the DVR. See the illustration below.

STATIC	
IP	61. 66. 138. 53
GATEWAY	61. 66. 138. 65
NETMASK	255. 255. 255. 0

2) NETWORK TYPE (DHCP):

This DHCP function need to be supported by router or cable modem network with DHCP service. For detailed DHCP setting, please refer to P.36 and P.37 (Licensed Software AP).

3) NETWORK TYPE (PPPOE):

This PPPOE function need to have “username” and “password” from ISP supplier. For detailed PPPOE setting, please refer to P.36 and P.37 (Licensed Software AP).

NOTE:

DHCP and PPPOE network types need to apply DDNS service to get “Hostname” to correspond to dynamic IP address. For detailed DDNS setting, please refer to P.37.

5.14 ADVANCE MENU ___ BACKUP

Move the cursor to the “BACKUP”, and press ”ENTER”, then the screen will show the following options.

BACKUP
USB BACKUP DVD BACKUP

Select “USB BACKUP” and then press “Enter”.

USB BACKUP	
TIME	2005-05-30 13 : 30 : 50
BACKUP SIZE	0000 MB
AVAILABLE SIZE	0000 MB
CHANNEL	01
HDD NUM	MASTER
BACKUP TO USB	START

1) TIME:
Select the start time of the backup.

2) BACKUP SIZE:
Set the size of the backup file.

3) AVAILABLE SIZE:
The information of the USB available capacity.

4) CHANNEL:
Choose the channel.

5) HDD NUM:
Choose the HDD.

6) BACKUP TO USB:
Press “ENTER” to start backup the chosen file to USB.

NOTE:

① The USB format must be “FAT 32”.

② It is suggest that clear all the files in the USB before you backup files in your USB.

5.15 ADVANCE MENU ___HDD INFO

You can get all the capacity information of the connected HDD.

HDD INFO			
HDD NUM	HDD SIZE	HDD NUM	HDD SIZE
MASTER	400.517	SLAVE	NO HDD
EXT 001	400.517	EXT002	400.517
EXT 003	400.517	EXT004	NO HDD
EXT 005	NO HDD	EXT006	NO HDD
EXT 007	NO HDD	EXT008	NO HDD
EXT 009	NO HDD	EXT010	NO HDD
EXT 011	NO HDD	EXT012	NO HDD

5.16 ADVANCE MENU ___EVENT LOG

You can get all the information (event type, time, and channel) of the event list (including video loss list, net list, other lists (such as power on / off, key unlock, reset to default). Select the event list you want to see and press “ENTER”.

EVENT LOG	
VLOSS	LIST
NET	LIST
OTHERS	
CLEAR	ALL

1) VLOSS LIST:
Show the information of video loss list.

2) NET LIST:
Show the information of net login list.

3) OTHERS:
Show the information of power on / off, unlock, reset to default list.

6.1 SEARCH

Press "SHIFT" + "SEARCH" buttons on the front panel of the DVR to enter the search mode. Then the screen will show the following options.

SEARCH	
HDD	MASTER
FULL	LIST
RECORD	LIST
SYSTEM	LIST
ALARM	LIST
MOTION	LIST
TIME	SEARCH

1) HDD:
Select the the specific HDD.

2) FULL LIST:
List all recorded files
(R: RECORD / S: SYSTEM / A: ALARM / MS: MOTION / T: TIMER).

3) RECORD LIST:
Search among the list of manual recorded files.

4) SYSTEM LIST:
Search among the list of system recorded files.
Note: Under continuous recording, the DVR system will save one recording file every one hour.

5) ALARM LIST:
Search among the list of alarm trigger recorded files.

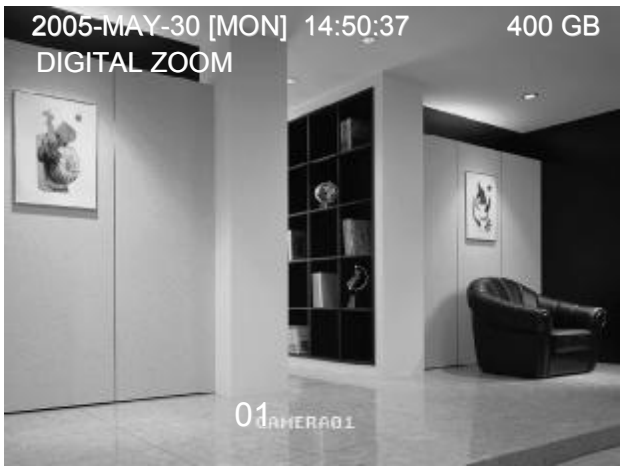
6) MOTION LIST:
Search among the list of motion trigger recorded files.

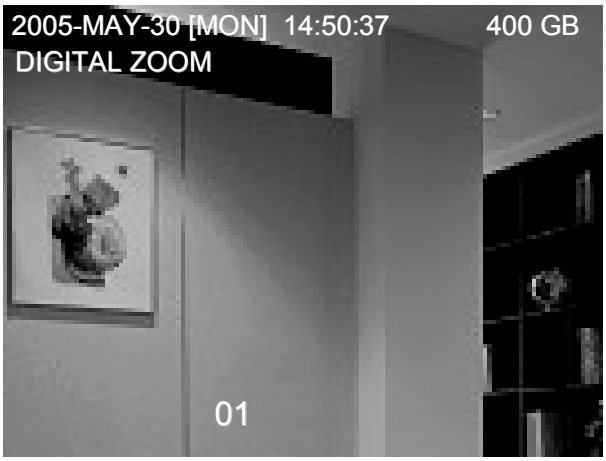
7) TIME SEARCH:
Search by specific time period (YEAR / MONTH / DAY / HOUR / MIN).

NOTE:
Move the cursor to the specific recorded file and press "ENTER" to play the video, and press stop " ■ " button to return the live display.

6.2 2X DIGITAL ZOOM

Press “ZOOM” button on the front panel of the DVR to enlarge the picture of selected channel (2X digital zoom). You will have ¼ view size of the enlarged picture. Therefore use the “ ▲▼◄► “ to navigate.





1) Press the “ZOOM” button again to exit the zoom picture.
2) Press “ ▲▼◄► “ button to move the zoom position.
3) Users could also press the “Digital Zoom” button on the IR remote control panel.

6.3 KEY LOCK

1) Key Lock On:
   ① Press “MENU” + “ENTER” buttons to key lock.
   ② Auto key lock: refer to “Section 5.12 ADVANCE MENU_SYSTEM”.
2) Key Lock Off:
   Press any key (except “SHIFT” and “POWER” buttons) and then key in the password to exit Key Lock mode.
3) Password:
   As to the password setting, please refer to “Section 5.12 ADVANCE MENU_SYSTEM”.

6.4 SWITCH THE N/P SYSTEM

1) Press “POWER” button to shutdown, and then press “POWER” + “►“ to switch to PAL system.
2) Press “POWER” button to shutdown, and then press “POWER” + “◄“ to switch to NTSC system.

6.5 USB UPGRADE

Users can use USB for upgrade. Please format the USB memory device first.

1) Get the upgrade files from your distributor.
2) Save the upgrade files in your USB device (Do not change the file name).
3) Go to the “MAIN MENU – SYSTEM - UPGRADE” , and press “ENTER”.
4) Select “YES”, and press “ENTER” again to confirm upgrade.

1 WARNING UPGRADE ARE YOU SURE? YES NO	2 WARNING PLEASE WAIT… UPGRADE KERNEL OK	3 WARNING PLEASE WAIT… UPGRADE BOOT OK
4 WARNING PLEASE WAIT… UPGRADE HTML OK	5 WARNING UPGRADE SUCCESS REBOOT OK	6 WARNING SHUTDOWN PLEASE WAIT… OK

NOTE:

① The USB format must be “FAT 32”.

② If the USB is not supported by the DVR, then the “USB ERROR” message will be shown on the screen.

③ The file type of the backup files could only use the licensed software to view the playback.

6.6 LICENSED SOFTWARE AP

1) Install the Software:

① Put the attached CD into a CD-ROM and it will start to install application program into PC.

② Click setup icon “ ” twice to setup.

③ After setup, user will see the icon “ “ on the desktop.

2) Software Operation:

① Connect DVR with PC via RJ45 network line.

② LAN Setting :
The default DVR IP is “192.168.1.10”, and default “username” and “password” are both “admin”. Users should set PC IP address as “IP:192.168.1.***XXX*** (1~255, except 10)” (in order to let the PC and DVR under the same domain).

③ Click twice to enter login page.
Key in 192.168.1.10, admin, admin into the login page. After connect to the DVR with local LAN, users could modify the network setting in DVR or in system config of the licensed software AP.

④ Network Type ~ Static IP :
Set the network information in the DVR menu (Section 5.13) or in System Config of the licensed software AP (P.36).

Network Type ~ Dynamic IP (DHCP and PPPOE) :
Set the Network information in System Config of the licensed software AP. For detailed DHCP and PPPOE setting, please refer to P.36 and P.37.

⑤ After setup the network information, click twice to enter login page.
Key in “Username”, “ Password”, and “IP” (Static IP) or “Host name” (Dynamic IP). And then click the green button to connect.

⑥ LOGIN AP Icon Explanation.

Address Book: You can press this button to add a new IP into the IP Address Book or choose any preset IP address to access the Video Server.

Search: Search available DVR IP address in local area network and modify the network setting of the DVR.

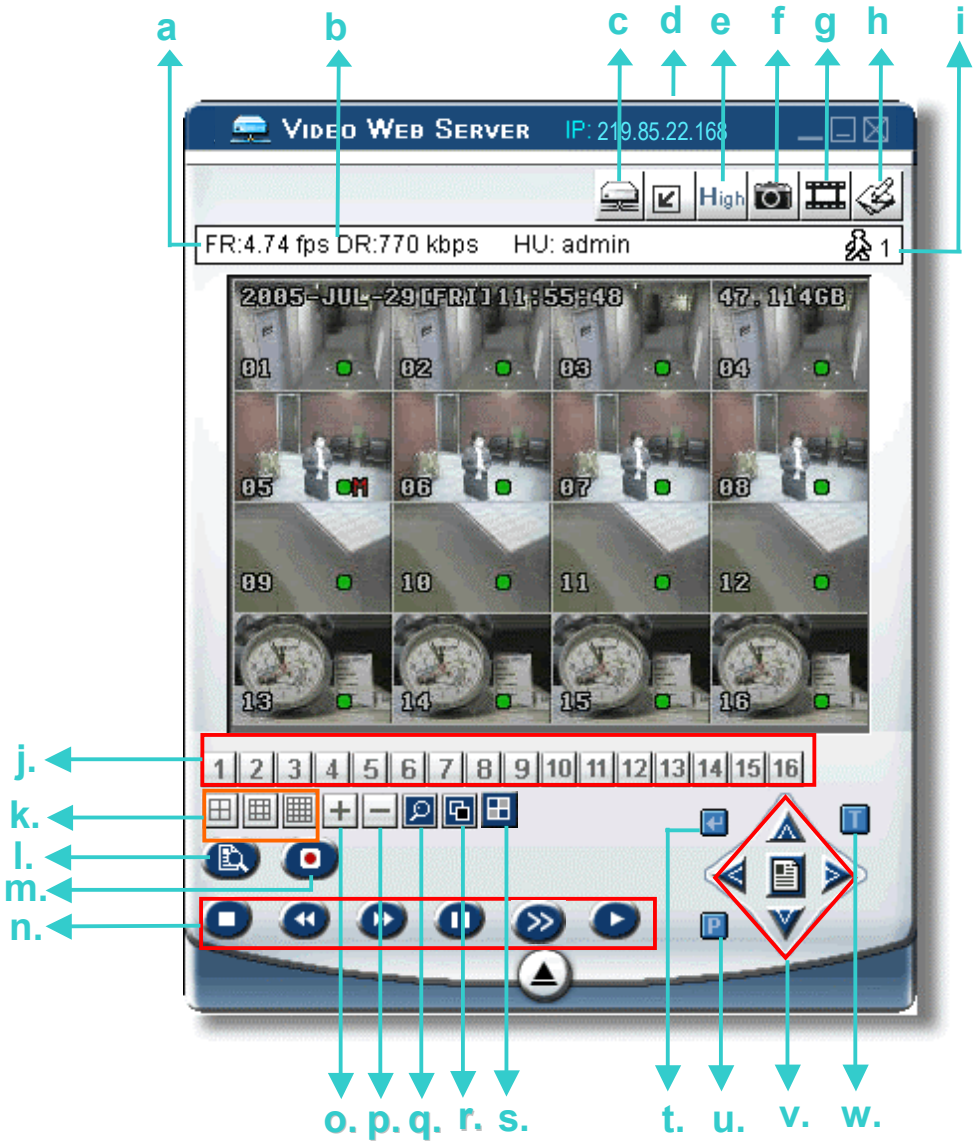
Player: You can press this button to access and play the recorded files saved in your PC.

Copy: You can press this button to copy all the software installation files, so you could keep all the settings of video web server for next software installation on other PC.

NOTE: The version of the licensed software will shown on the login page.

⑦ Introduction of Basic Operation : Video Web Server Control Panel.

Digital Device Control Panel ~ 16CH DVR



a. Image Transfer Rate Per Second

b. Data Transfer Rate

c. Connect / Disconnect

d. Resolution:
NTSC: 320 × 228 ; 640 × 456
PAL: 320 × 276 ; 640 × 552

e. Image Quality (High, Medium, Low)

f. Snapshot : press this button to have a snapshot of the image which will be saved in the designated destination.

g. Record : press this button, the video web server will start to record, and press this button again to stop record. The recording files will be saved to PC. Each recording file can up to 18,000 frames. When the recording file capacity is full, the new recorded file will be saved to the second file. Besides, if the HDD space is less than 200MB, the program will stop recording.

h. System Config: press this button to enter the setting page of the video web server.

i. Number of Online Users

j. CH 1 ~ 16

k. 4, 9, 16 Channel Display

l. Search

m. Record

n. Stop / Fast Rewind / Fast Forward / Pause / Slow Playback / Play

o. ＋

p. －

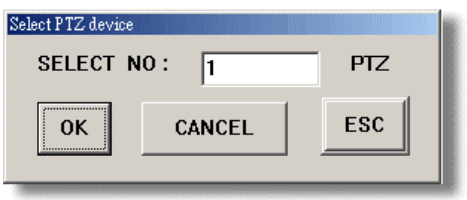
q. Digital Zoom

r. Set : press this button to change channel display position.
Press "▲▼◀▶ " to select the channel which You would like to change.
Press "＋" or "－" select the channel which You would like show.
Press "Enter" button to confirm.

s. Sequence: press this button to enter the call monitor function and press again to exit from call monitor mode.

t. Enter

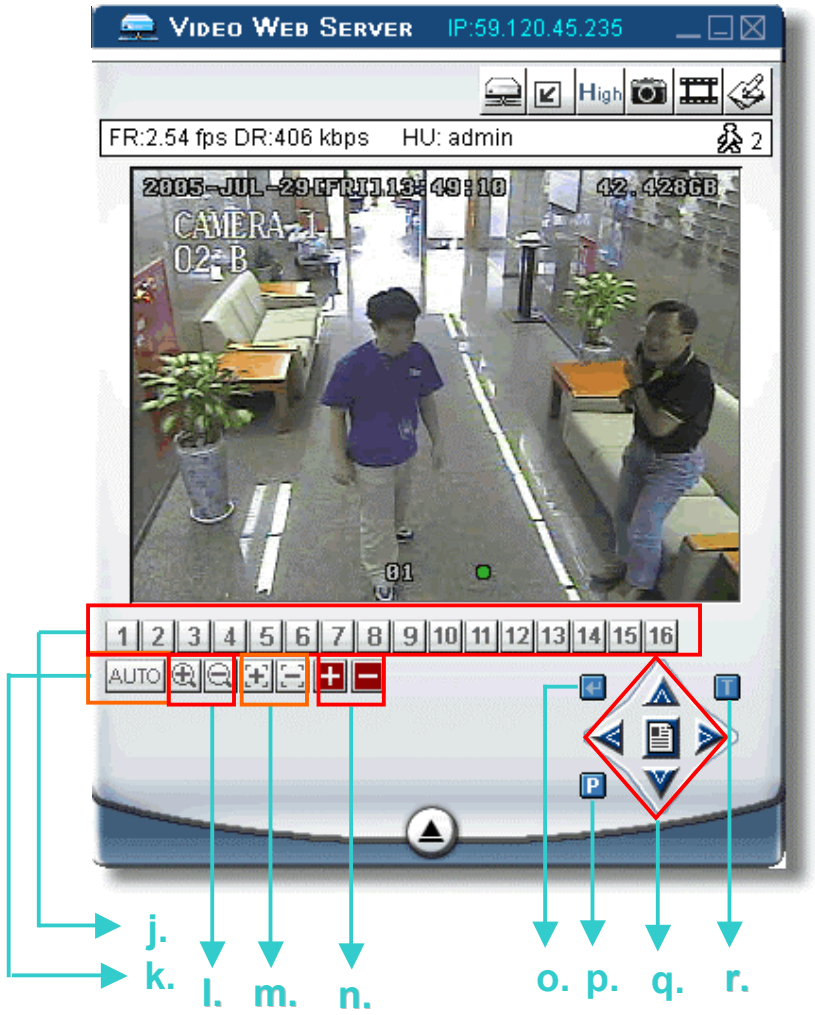
u. PTZ Control Off / On:
When you turn the PTZ control on, then you could select the PTZ device, and press "OK" button to enter the PTZ control AP screen. (Press "ESC" to exit from PTZ control AP screen and back to DVR control AP screen)



v. Menu / Up / Down / Left / Right

w. Turbo Off / On

Digital Device Control Panel ~ PTZ



j. Preset 1 ~ 16

k. AUTO

l. Zoom Tele Zoom Wide

m. Focus Near Focus Far

n. Max Zoom In Max Zoom Out

o. Enter

p. PTZ Control Off / On:
When you turn the PTZ control on, then you could select the PTZ device, and press “OK” button to enter the PTZ control AP screen. (Press “ESC” to exit from PTZ control AP screen and back to DVR control AP screen)

q. Menu / Up / Down / Left / Right

r. Turbo:
To speed up menu selecting or the control of the PTZ camera under video web server, you can activate "Turbo" function by clicking this button. Users are allowed to change the turbo steps from 1 to 10. .
Ex. If you activate the TURBO function, then when you press one of the button up/down/left/right, one mouse click will function as if you click 3 times.

⑧ Playback Operation.

a. b. c. d. e. f. g. h. i. j. k. l.

a. Snapshot
b. Stop
c. Pause
d. Fast Rewind (1X, 2X, 4X, 8X, 16X)
e. Slow Rewind (1X, 1/2X, 1/4X, 1/8X, 1/16X)
f. PLAY (1X)
g. Slow Playback (1X, 1/2X, 1/4X, 1/8X, 1/16X)
h. Fast Forward (1X, 2X, 4X, 8X, 16X)
i. OSD (show / hide)
j. Config. Setting (File path for snapshot, text color, progress color, channel color)
k. Open Previous File
l. Open Next File

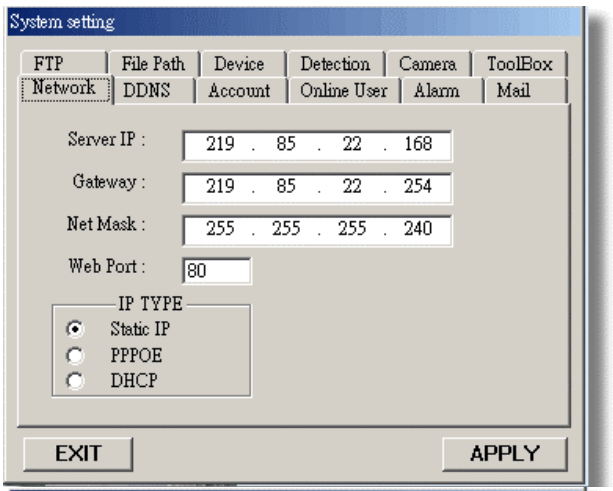
Note:
When you pause the playback picture, you could press “e” button to go to the previous image, or press “g” button to go to the next image.

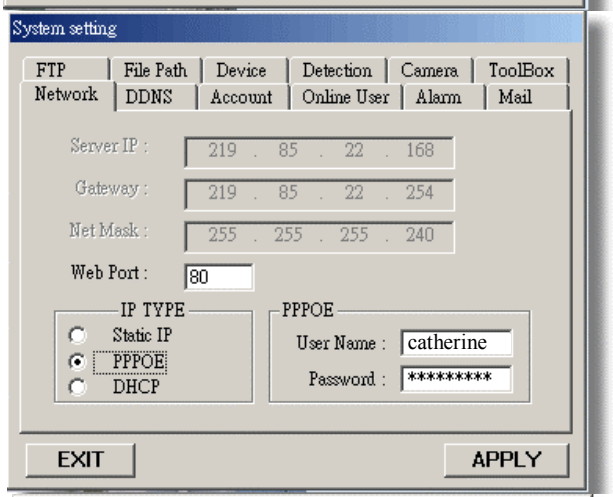
3) Advanced Setting:

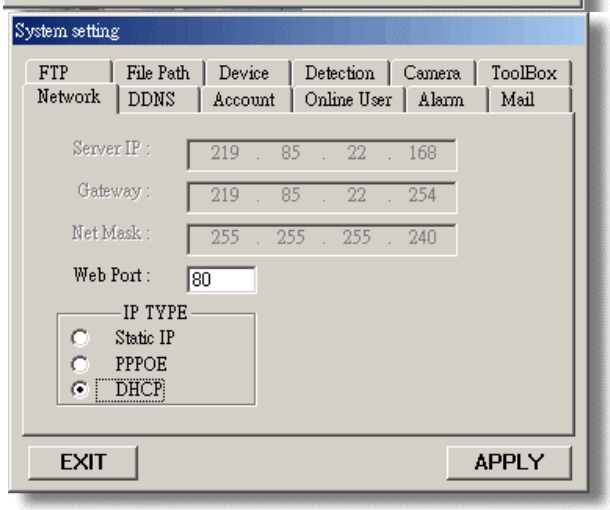
- ❑ Press “System Config” button to enter the system setting page.
- ❑ In this system setting page, you can select the function which you want to set up.
- ❑ After setting, please press “APPLY” button to save the settings.
- ❑ System setting includes:
  Network, DDNS, Account, Online User, Alarm, Mail, FTP, Alarm Database, File Path, Device, Detection, Camera, and Toolbox.

Network

Click on Network setting, and choose the IP TYPE (Static IP, PPPOE, DHCP)







① Static IP:
key in the server IP, gateway, net mask, and web port.

② PPPOE:
Key in the “username” and “password” provided by your ISP supplier. PPPOE will also need to apply DDNS service to get “Hostname” to correspond to dynamic IP address. Please refer to P.37.

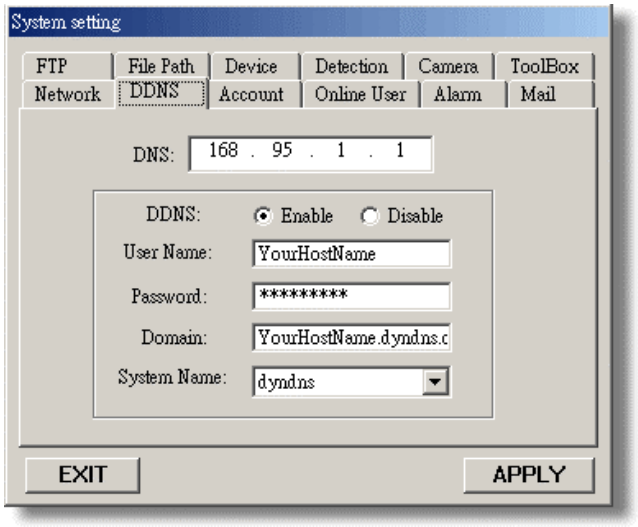
③ DHCP:
This DHCP function need to be supported by router or cable modem network with DHCP service. DHCP will also need to apply DDNS service to get “Hostname” to correspond to dynamic IP address. Please refer to P.37.

NOTE:
Some router brand may need to restart the DVR to get the IP address.

DDNS

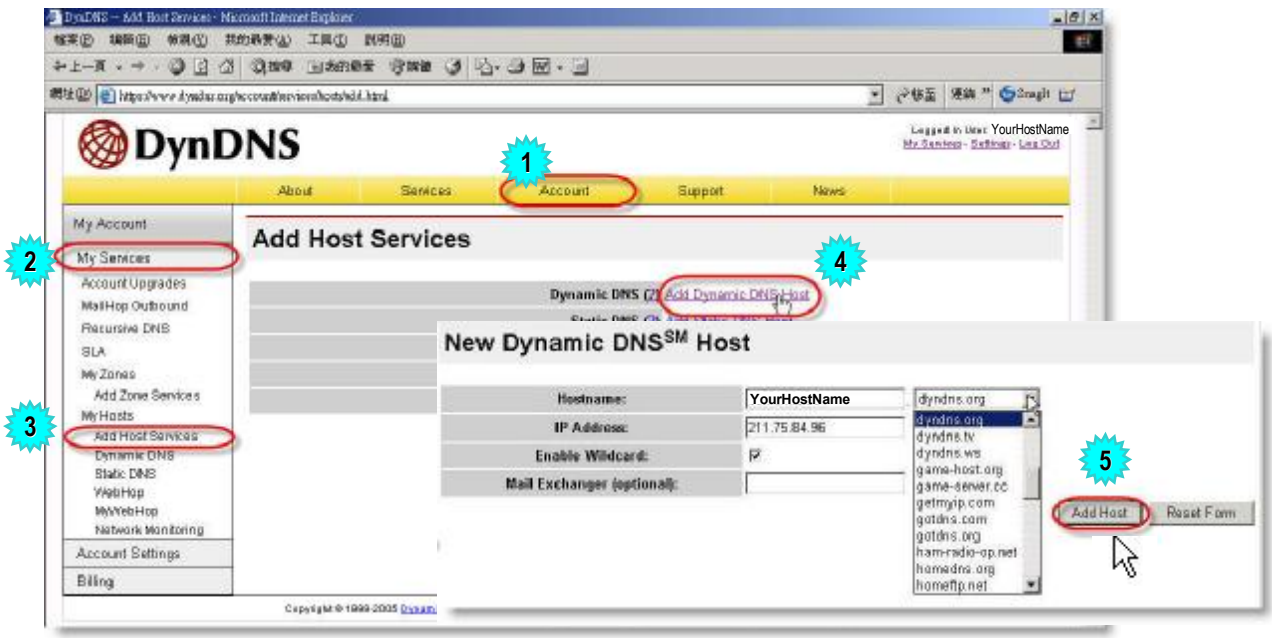
① DDNS is a service for transforming dynamic IP to corresponding to a specific “Hostname”.

② Enable the DDNS function.
Key in the “DDNS username” into “username”.
Key in the “DDNS password” into “password”.
Key in the “Hostname” into “Domain”.
Choose the “DDNS system name”.

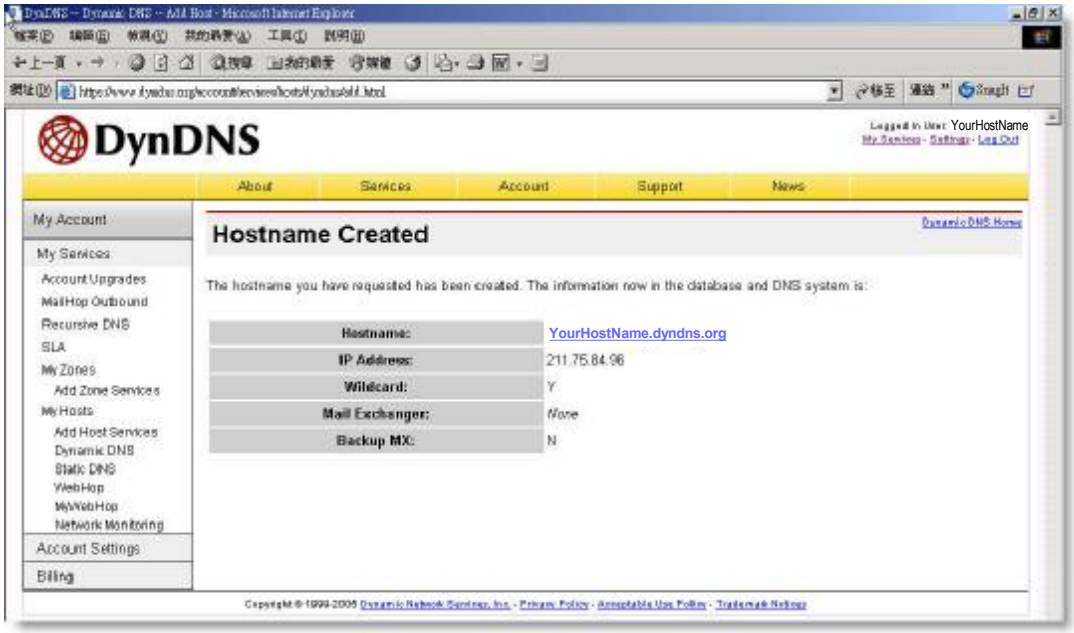


DDNS APPLY:

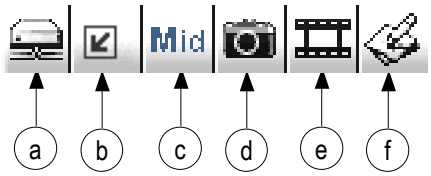
- ❑ Go to a website which provide free DDNS services. For example, “http://www.dyndns.org”.
- ❑ Create an account in DynDNS.
- ❑ After created your account, you will receive an confirmation e-mail within a few minutes. To complete registration, please follow the directions that you will receive. You must complete these steps within 48 hours to complete your registration. If you do not the confirmation e-mail within an hour or so, request a “password reset” (http://www.dyndns.org/account/resetpass/).
- ❑ Use the DDNS username and password to login into the DynDNS.
- ❑ Create Hostname.
Login → “Account” → “My Service” → “Add Host Services” → “Add Dynamic DNS Host” → Enter and choose the hostname → Click on “Add Host”.



❑ DDNS Hostname created.



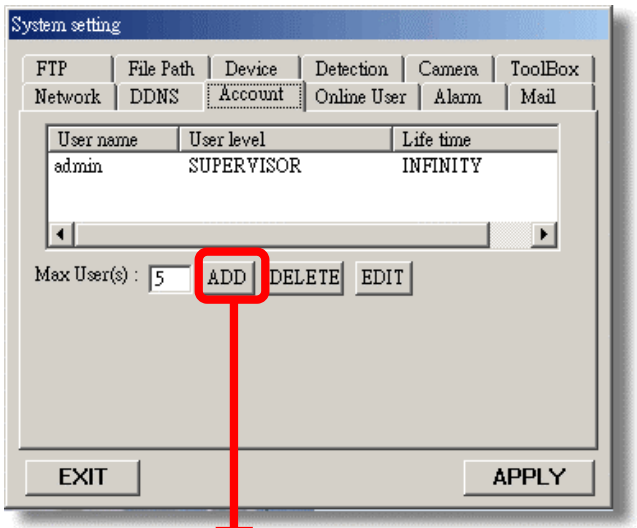
Account

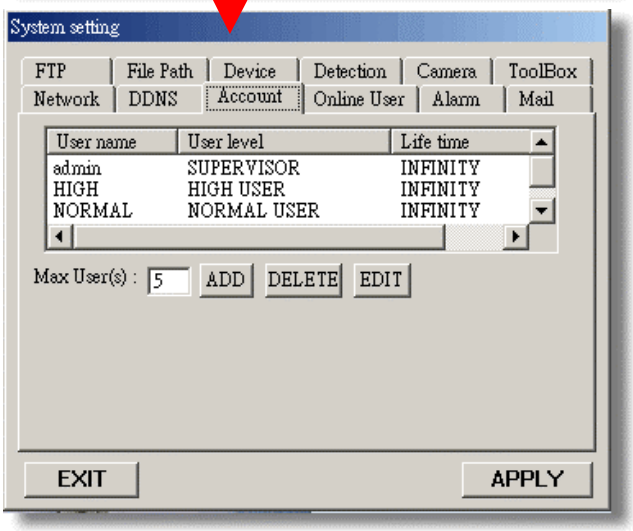


① Set up the user's account (Max 5 accounts) , password, life time, and authority level (Max 5 accounts on line at the same time).

② <u>User's level:</u>
SUPERVISOR —
Control all the functions ("a", "b", "c", "d", "e" and "f").
HIGH —
Control only "a", "b", "c", "d" and "e" functions, but cannot control "f" function.
NORMAL —
Control only "a", "d", and "e" functions, but cannot control "b", "c" and "f" functions.
GUEST —
Watch the image only. Can only use the "a" function.

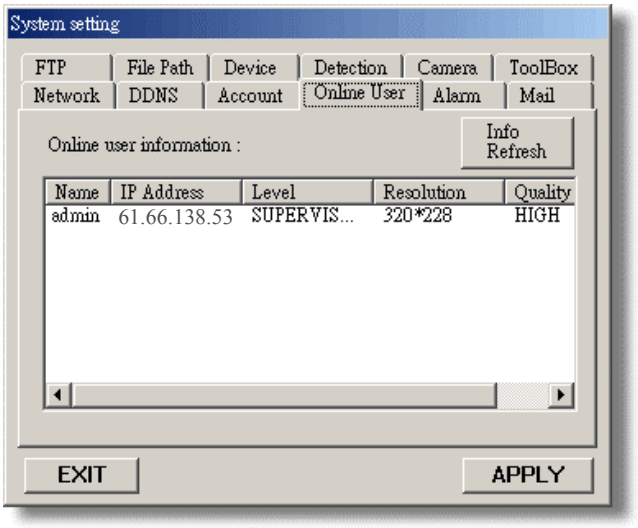
③ <u>Life time :</u>
According to different authority level, different accounts can stay online for different time period (1min, 5min, 10min, 1hour, 1day, infinity).





Online User

① You can get all the online users' information here (Name, IP Address, Authority Level, Resolution, and Image Quality).



Alarm

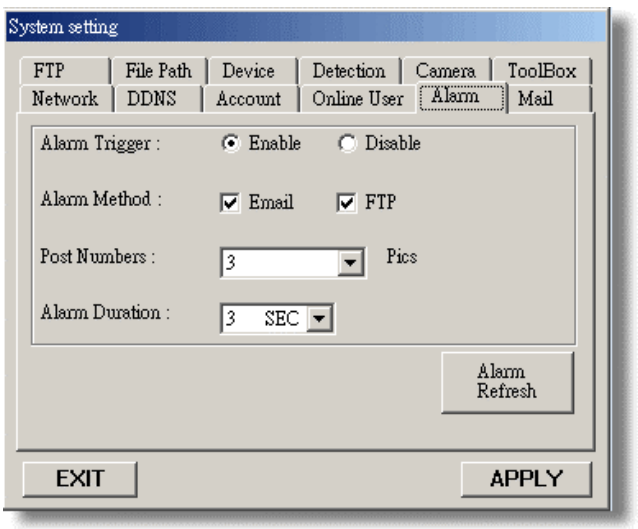
① Alarm Trigger:
Enable or disable Email and FTP notification function.

② Alarm Method:
Two selections—Email or FTP.

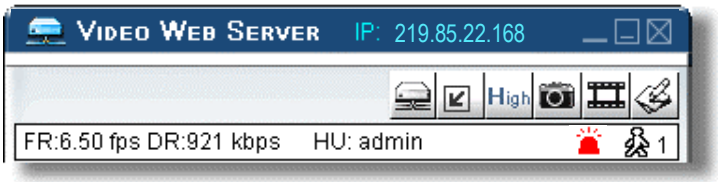
③ Post Number:
MJPEG pictures (1-10 pictures).

④ Alarm Duration:
You can set the alarm duration time for 3 sec., 15 sec., 30 sec., 1 min., or 30 min..

⑤ Alarm Refresh:
Clean the alarm message " " which is shown on the screen.



Note: When the alarm is triggered by the external device, such as PIR or Sensor, you can find " " icon showed on the screen. And the Video Web Server will start recording automatically.



Mail

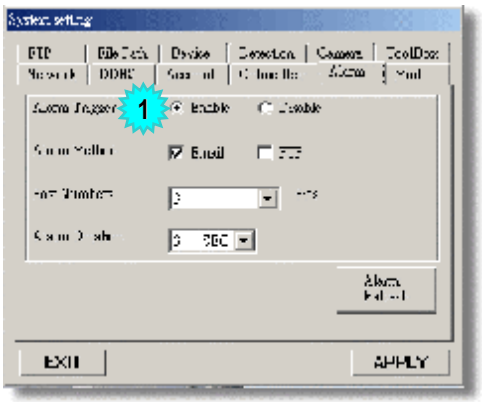
① When alarm is triggered, the Video Web Server will capture the instant picture (10 JPEG pictures max), and e-mail it to the assigned recipients.

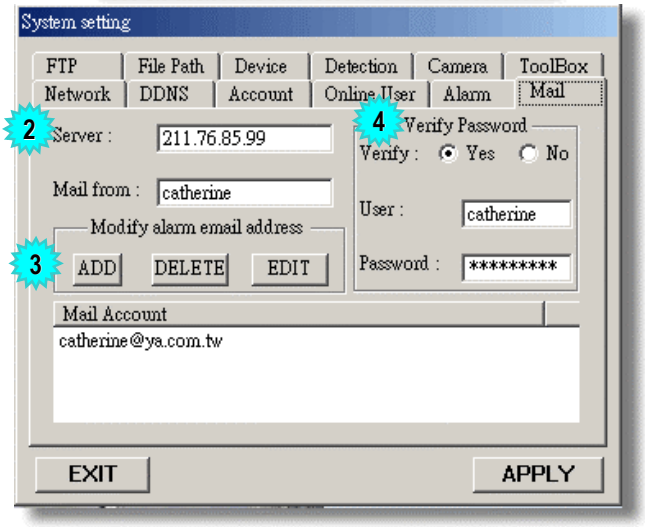
② You can get information (SMTP server) from your e-mail system supplier.

③ You can add the email addresses where motion trigger captured pictures or film will be sent to by setting “Modify alarm email address” .

④ If the mail server require verify password, please key in username and password.

Note: To get alarm mail when there is a motion trigger, you must enable the function of e-mail notification in the Alarm setting.

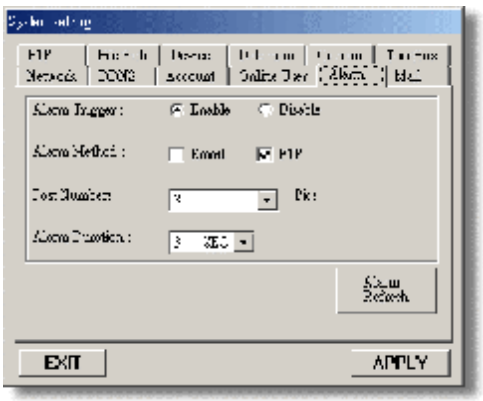


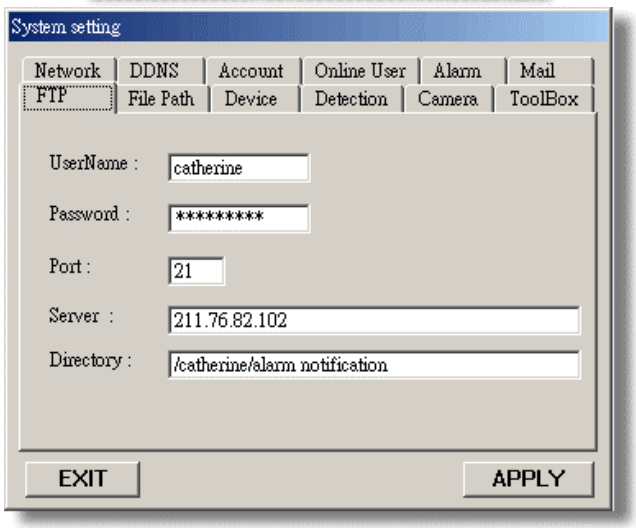


FTP

① When motion alarm is triggered, the video server will capture the instant picture and upload the captured image to the assigned FTP site.

Note: To get alarm notification at FTP site when there is a motion trigger, you must enable the function of FTP notification in the Alarm setting.

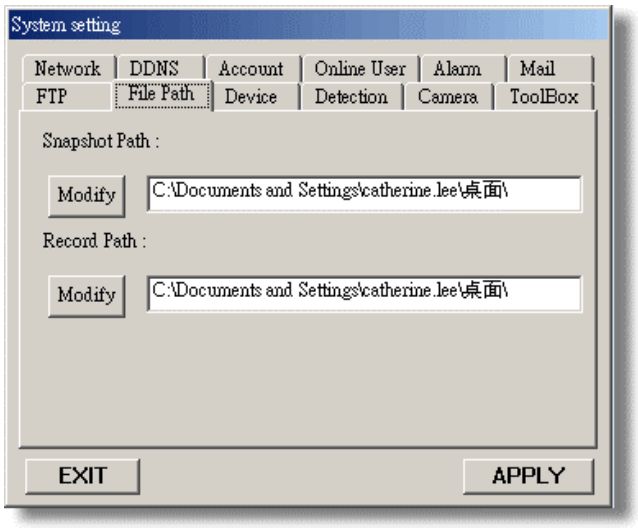




File Path

① Snapshot Path:
You can assign the route for snapshot image.

② Record Path:
You can assign the route for recording file.

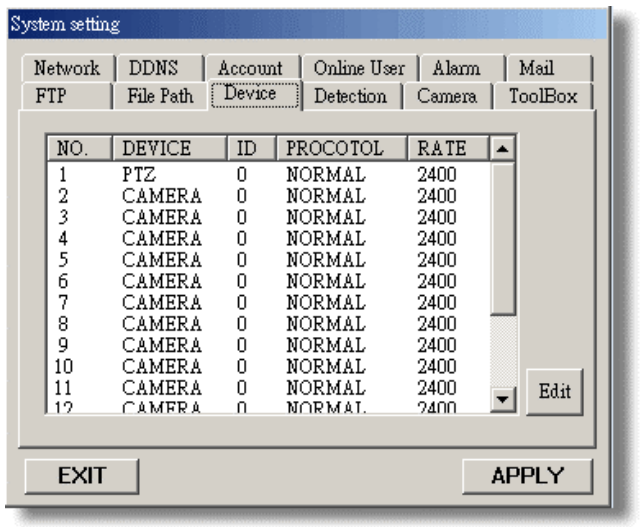


Device

① You can edit all the external device in this Windows.

② Select the device, and then press “Edit” button to set up “Device Type”, “ID No.”, “Protocol Type” and “Baud Rate” to control the equipments via Video Web Server.

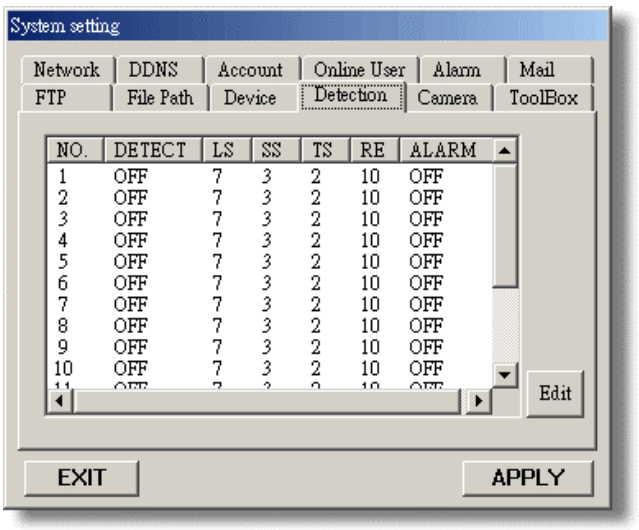
③ This video web server supports different AP screens for control the following peripherals: Camera, 1CH DVR, 4CH DVR (Full), 4CH DVR (Basic), 4CH DMR, 9 CH DMR, 16 CH DMR, 4 CH DQR, PTZ, 4 CH MPEG 2 DVR.



Detection

① You can set the detection area and detection sensitivity factors in this window.

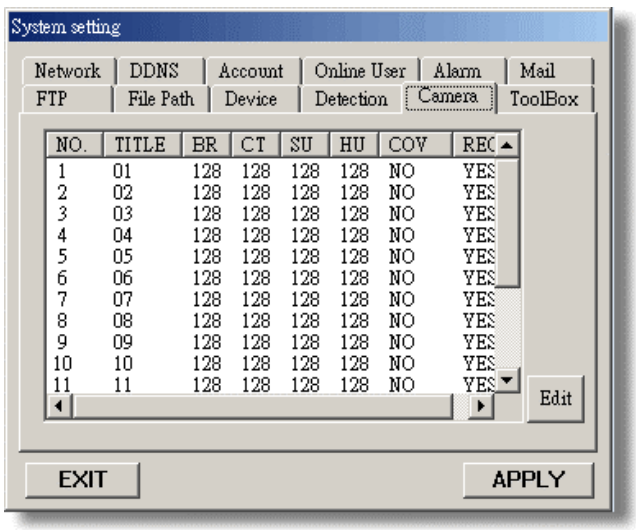
② Select the device, and press “Edit” button to enter the setting page.

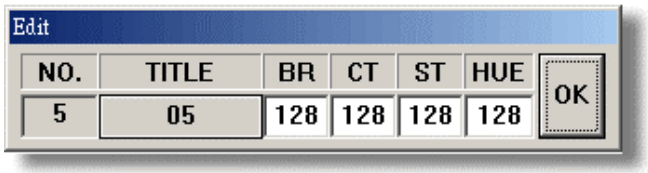


Camera

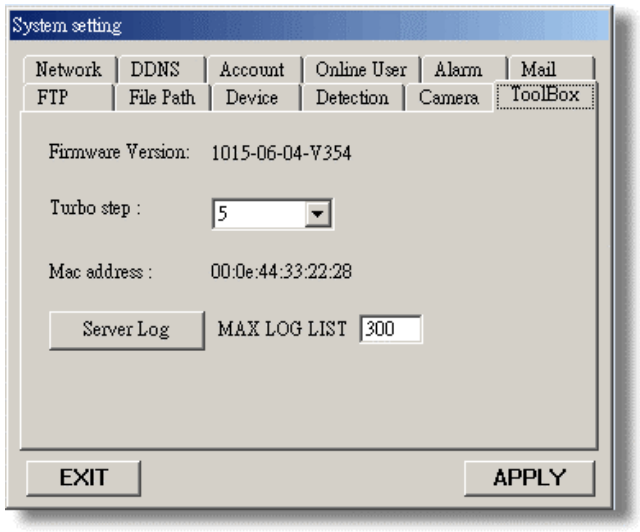
① You can get the setting information of the connected cameras in the window.

② You can select a specific camera and press “Edit” button to set the brightness / contrast / saturation / hue of the camera. After setting, press “OK” to confirm.


System setting
Network
DDNS
Account
Online User
Alarm
Mail
FTP
File Path
Device
Detection
Camera
ToolBox
NO. TITLE BR CT SU HU COV REC
1 01 128 128 128 128 NO YES
2 02 128 128 128 128 NO YES
3 03 128 128 128 128 NO YES
4 04 128 128 128 128 NO YES
5 05 128 128 128 128 NO YES
6 06 128 128 128 128 NO YES
7 07 128 128 128 128 NO YES
8 08 128 128 128 128 NO YES
9 09 128 128 128 128 NO YES
10 10 128 128 128 128 NO YES
11 11 128 128 128 128 NO YES
Edit
EXIT
APPLY



Tool Box



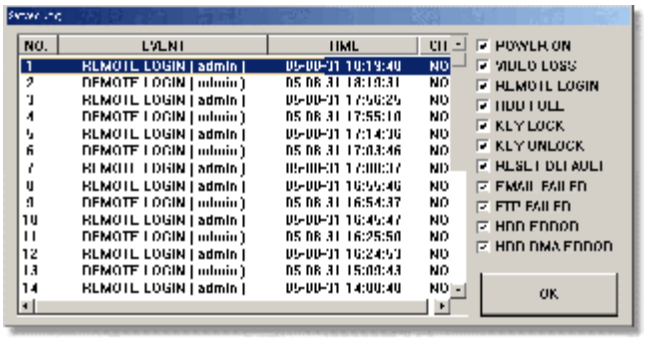
① You can get the information of the DVR firmware version in the window.

② You can select “turbo step” (1 - 10).

To speed up menu selecting or the control of the PTZ camera under video web server, you can activate "Turbo" function by clicking this button. Users are allowed to change the turbo steps from 1 to 10.
Ex. If you activate the TURBO function, and set “5" for turbo step, then when you press one of the button up/down/left/right, one mouse click will as if you click 5 times.

③ Max Log List: Set the maximum number of log list.

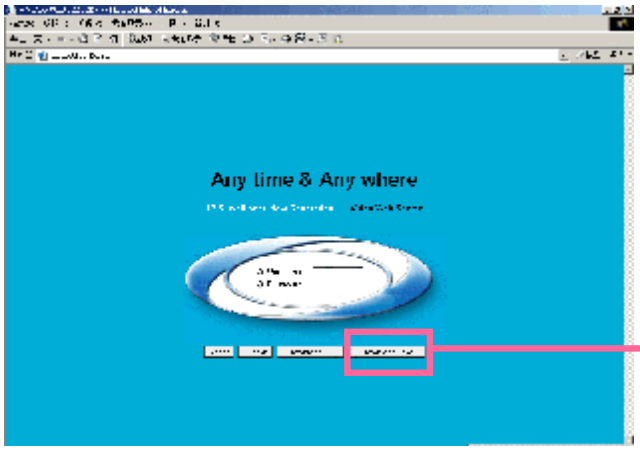
④ Server Log: Press “Server Log” button to enter the server log list window.



6.7 CONNECT TO AP VIA IE BROWSER

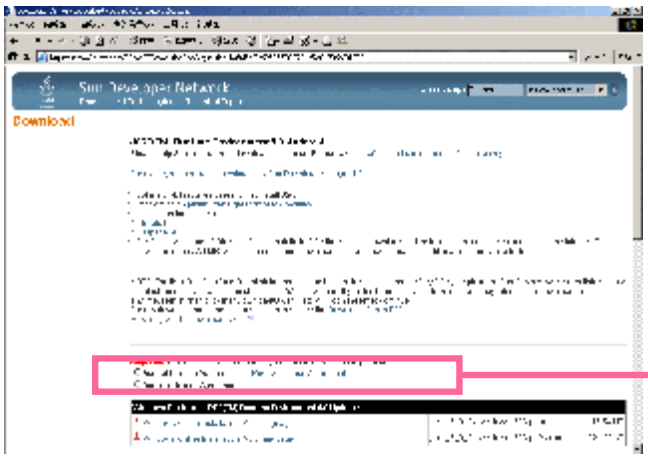
You can also connect to the video Web Server E via IE browser.
This function is suitable in both Windows 2000 and Windows XP.

Step 1: Type IP address into the URL address box and press “enter”. Then you’ll see the following page.



Step 2: Press the “Download JAVA” button, and you’ll see the following page.

Step 3: Press “Accept License Agreement”.

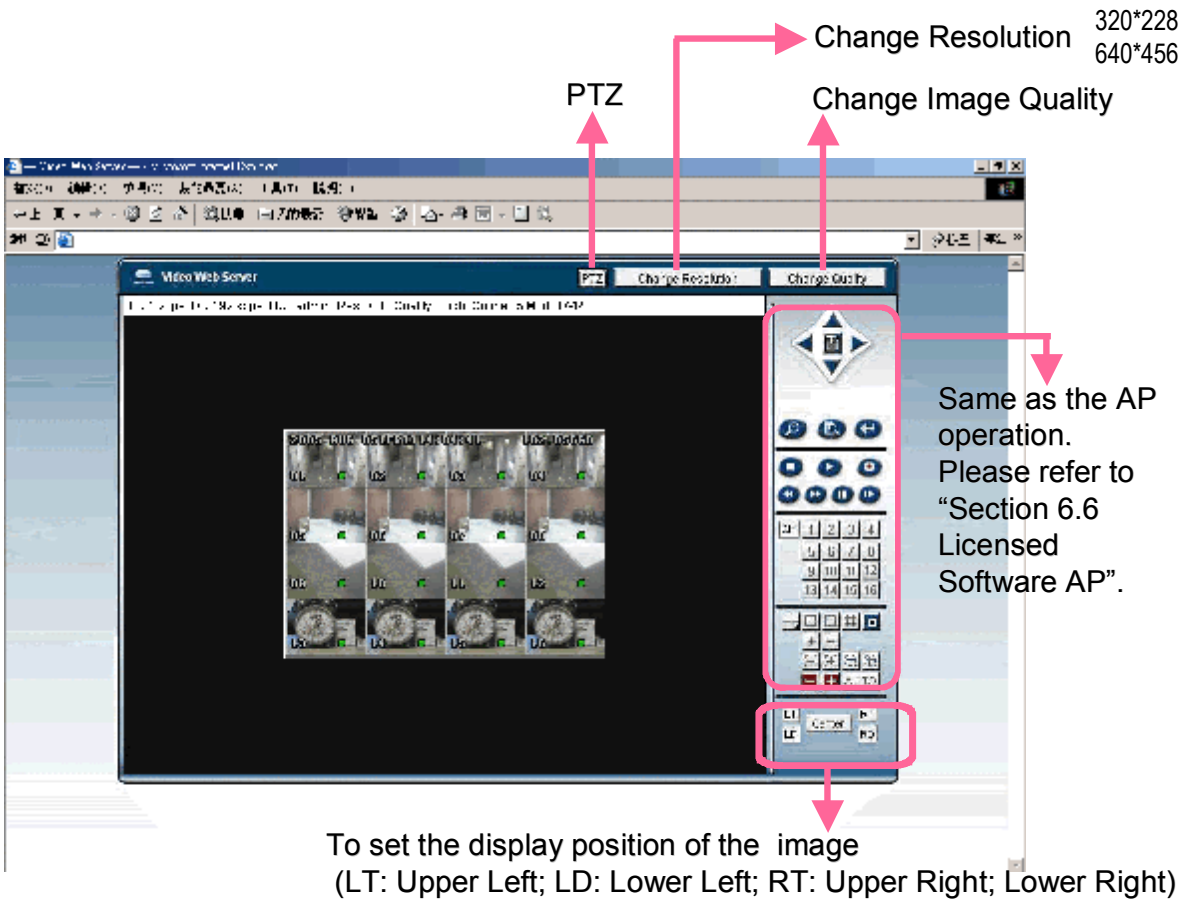


Step 4: Choose “Windows Offline Installation” or “Windows Online Installation”.

Step 5: Take “Windows Offline Installation” as a example.
Save the setup file “jre-1_5_0_04-windows-i586-p” on the desktop of PC.

Click “ jre-1_5_0_0... “ twice to setup.

Step 6: After installation, please type the IP address of your DVR into the URL address box and press “enter”. Then you’ll see the login page. Key in the “username” and “password”. Then you’ll see the following page.


Change Resolution
320*228
640*456
PTZ
Change Image Quality
Same as the AP operation. Please refer to “Section 6.6 Licensed Software AP”.
To set the display position of the image
(LT: Upper Left; LD: Lower Left; RT: Upper Right; Lower Right)

6.8 GPRS

GPRS function Installation (Take **Motorola** 768i for example)

1) First of all, you should make sure that your cell phone supports GPRS and MIDP2.0 (JAVA application).

2) Connect to the website http://211.22.74.18 via the browser of your cell phone. (Make sure that your GPRS function is working).

3) Download and install “16CH_MPEG-4”.

4) After installation, the “16CH_MPEG-4” icon will shown on the desktop of the phone.

5) Click the icon of Video Server V787 to enter the setting frame. Please tap in the IP address, port, username, and password of the DVR, which you like to see. And press “connect” button, after you finished the setting.

6) After connected to the “16CH_MPEG-4” video server, you will see the AP control panel on the screen.

NOTE: It’s not suggest to set the DVR port as 80 port. Because some telecommunication service provider may regulate 80 port.

6.9 OPTIONAL PERIPHERAL

For the detailed operation of the peripheral, please refer to its own manual.

1) IDA (independent disk array):

Connect DVR to IDA (Independent Disk Array) with SCSI cable:

Please let the IDA power on before connection. And then connected the DVR and the IDA with SCSI cable.

DVR’s Disk Array Port

IDA’s HOST Port

8.1 FAQ

Please refer to the FAQ table below for easy trouble shooting. The table below describes some typical problems and also their solutions. Please check them before calling your DVR dealer.

PROBLEM	SOLUTION
No power	Check power cord connections
	Confirm that there is power at the outlet
Not working when pressing any button	Check if it is under Key Lock mode
	Press any key and then key in the password to exit Key Lock mode
No recorded video	Check if the HDD is installed and connected properly
Timer Record enable does not working	Check if the Record Enable is set to YES
No live video	Check camera video cable and connections
	Check monitor video cable and connections
	Confirm that the camera is power supplied
	Check the setting of camera lens
Under overwritting and duplex modes, the playback motion is interrupted	please press “STOP” button and then the “PLAY” button to play again
Fix for a long time	Please stop record for 10 seconds before you swtich the NTSC / PAL sytem of the DVR
The media player of the recorded files	"WINDVD", "PowerDVD", and "VLC media player"

APPENDIX #1 – INSTALL THE HDD

Carefully following the steps to ensure correct installation.

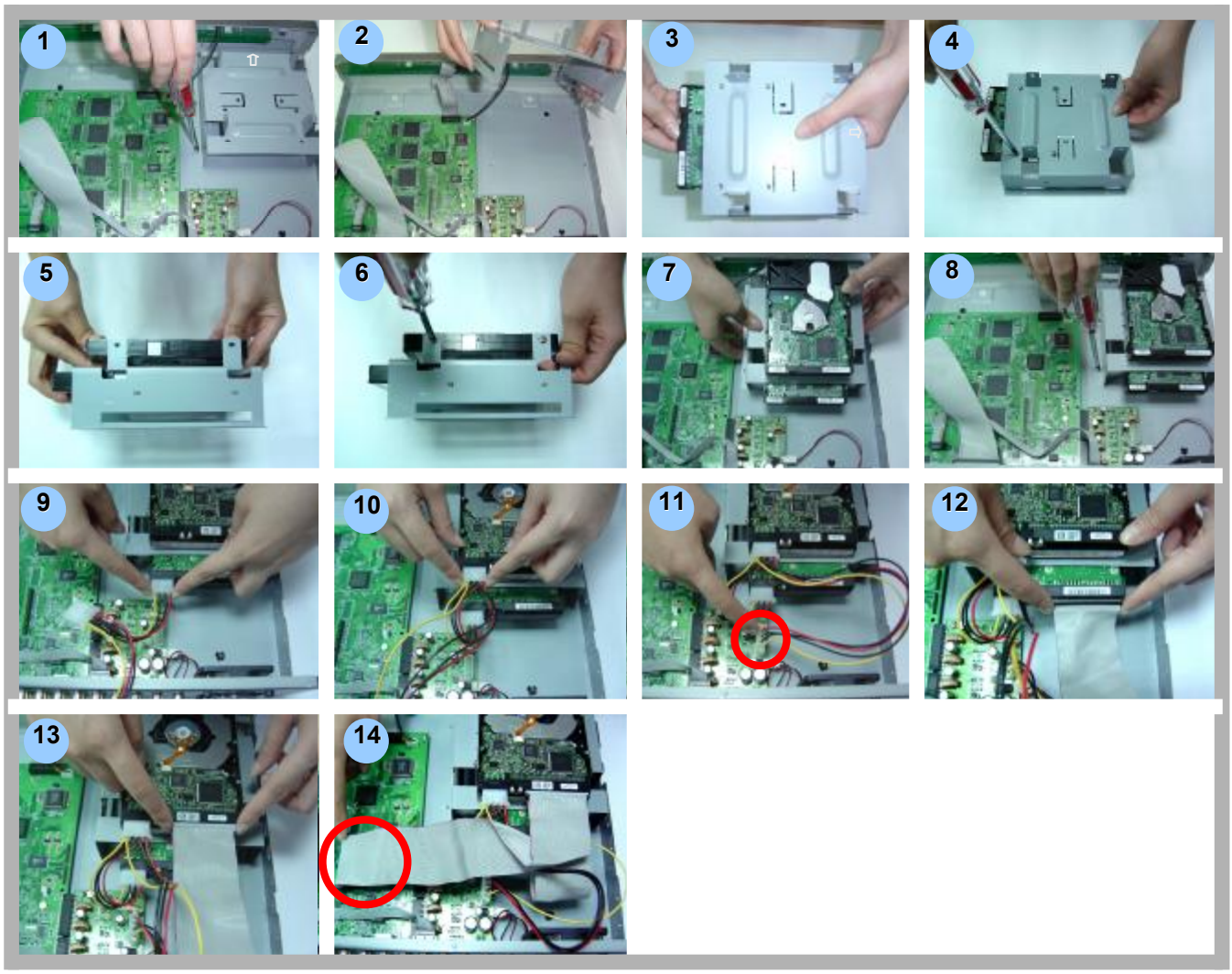
*** Note: If you want to install two HDDs, please set one HDD to “Master Mode” or “Single Mode”, and the other one to “Slave Mode”. ***

1) Open the upper cover of the DVR and screw out the bracket. 1 ~ 2

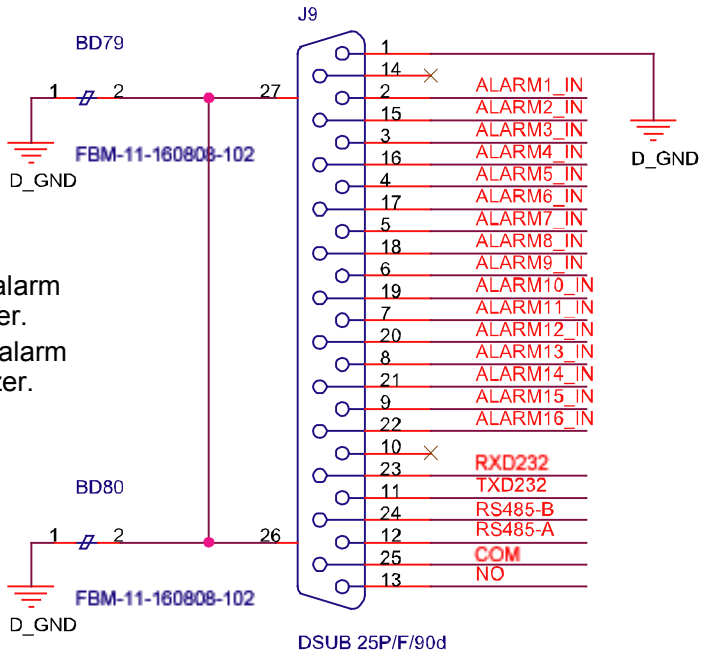
2) Screw HDD to the HDD bracket. 3 ~ 8

3) Connect the HDD to power connector and IDE BUS (make sure to align the HDD precisely to the pin connection). 9 ~ 14

4) Close the upper cover of the DVR.



APPENDIX #2 – PIN CONFIGURATION



PIN 1. **GND**
GROUND

PIN 2. ~ PIN 9. **ALARM INPUT**
To connect wire from ALARM INPUT (PIN 2 -- 9) to GND (PIN 1) connector,
DMR will start recording and buzzer will be on.
When Menu/ Camera/ Alarm is set up to “Low” : When alarm input signal is “ Low ”, the unit starts to record and buzzer.
When Menu/ Camera/ Alarm is set up to “High” : When alarm input signal is “ High ”, the unit starts to record and buzzer.

PIN 10. **PIN OFF**

PIN 11. **TXD232**
DMR can be controlled remotely by an external device or control system, such as a control keyboard, using RS-232 serial communications signals.

PIN 12. **RS485-A**
DMR can be controlled remotely by an external device or control system, such as a control keyboard, using RS485 serial communications signals.

PIN 13. **EXTERNAL ALARM NO.**
Under normal operation COM disconnect with NO. But when Alarm triggered, COM connect with NO.

PIN 14. **PIN OFF**

PIN 15. ~ PIN 22. **ALARM INPUT**
To connect wire from ALARM INPUT (PIN 15 -- 22) to GND (PIN 1) connector,
DMR will start recording and buzzer will be on.
When Menu/ Camera/ Alarm is set up to “Low” : When alarm input signal is “ Low ”, the unit starts to record and buzzer.
When Menu/ Camera/ Alarm is set up to “High” : When alarm input signal is “ High ”, the unit starts to record and buzzer.

PIN 23. **RXD232**
DMR can be controlled remotely by an external device or control system, such as a control keyboard, using RS-232 serial communications signals.

PIN 24. **RS485-B**
DMR can be controlled remotely by an external device or control system, such as a control keyboard, using RS485 serial communications signals.

PIN 25. **EXTERNAL ALARM COM**
Under normal operation COM disconnect with NO. But when alarm triggered, COM connect with NO.

APPENDIX #3 – RECORDING TIME TABLE

1. Take NTSC system and outdoor environment as an example.
2. Recording time varies depending on the following factors:
   * Different camera quality
   * Different picture composition (such as frequency of the object movement)

Record	Quality	IPS	500GB record time(hour)	Record day
Frame	Best	120	109	4.6
		60	192	8.0
		30	349	14.6
		15	565	23.5
	High	120	138	5.8
		60	243	10.1
		30	442	18.4
		15	714	29.8
	Normal	120	182	7.6
		60	319	13.3
		30	581	24.2
		15	939	39.1
	Basic	120	293	12.2
		60	516	21.5
		30	939	39.1
		15	1517	63.2
CIF	Best	480	130	5.4
		240	229	9.5
		120	417	17.4
		60	673	28.0
	High	480	184	7.6
		240	323	13.4
		120	587	24.5
		60	949	39.5
	Normal	480	242	10.1
		240	424	17.7
		120	773	32.2
		60	1249	52.0
	Basic	480	335	13.9
		240	588	24.5
		120	1071	44.6
		60	1730	72.1

APPENDIX #4 – COMPATIBLE USB BRAND

NOTE:

Please upgrade the firmware of the DVR to ensure the accuracy of following table.

Device Name	Flash Size
Transcend	256MB
Transcend	512MB
Kingston	256MB
Kingston	512MB
PQI	256MB
PQI	512MB
Apacer	256MB
Apacer	512MB
SanDisk	128MB
SanDisk	256MB
SanDisk	512MB
AI Flash 4	64MB
Tiny Drive	256MB
Jet Flash	128MB
APD	256MB
iPod	512MB
Oti	128MB
Acer	128MB
TS64MJFLASHA	64MB

MPEG-4 DVR

High-end Pentaplexes

Live Display:
16CH Live Display with sharp images

Record:
Real Time Recording at 480IPS (NTSC) / 400IPS (PAL)

Play Back:
View recorded images without stop the machine

Back Up:
DVD R/W, CD R/W allow for easy file back up

Network:
Support Network function for
Remote Surveillance